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KORUMBURRA SEWERAGE AUTHORITY.

BY-LAW No. 1.—RELATING TO CONSENTS, LICENCES, ETC., ALSO LEVELS, DIMENSIONS, CONSTRUCTION, MAINTENANCE, VENTILATION, AND CLEANSING SEWERS AND OTHER MATTERS RELATING TO HOUSE CONNEXION WORK.

THE Korumburra Sewerage Authority, pursuant to and in exercise of the powers and authorities conferred on it by the Sewerage Districts Acts and of any and every other power or authority in any wise enabling it in that behalf, doth hereby make and prescribe the following By-law, that is to say:—

In the construction and interpretation of this By-law, unless inconsistent with the context or subject-matter—

“Acts” means the Sewerage Districts Acts and any amendment thereof, and any Act incorporated therein, or amendment of such Acts.

“Anti-siphonage vent” (or “back vent”) means any vent pipe from any individual trap to the open air, or a main or branch vent pipe having for its purpose the prevention of loss of water seal in the trap.

“Approved” means approved by the Authority or its proper officer.

“Authority” means the Korumburra Sewerage Authority within the meaning of the Sewerage Districts Acts, within the Sewerage District of which the premises connected to or to be connected to the sewers are situated.

“Bore, diameter, or size” in reference to any pipe, drain, or sewer means the nominal internal diameter thereof.

“Building” means any building used as a work place, residence, place of business, place of amusement, or place of human habitation, or for the storage of food intended for human consumption, but does not include out-buildings, unless such are used for any of the above purposes.

“Combined pipe system” means that type of plumbing installation in which disconnector traps are omitted and both soil and waste pipes are connected directly to the drain or to a common pipe taking both soil and waste discharges, and in which a common system of venting is used for all classes of pipe.

“Combined drain” means a drain which serves two or more properties.

“Combined waste pipe” means any pipe which conveys the discharges from both soil and waste fixtures to the drain. Combined waste pipes are connected directly to the drain and are used only in connexion with the combined pipe system.

“Disconnector trap” means a trap for isolating or disconnecting waste pipes from the drain and soil pipes and providing inlet ventilation to the waste pipe or pipes discharging into it.

“Drain” means that portion of a drainage system which is not vested in the Authority and which conveys the discharge from soil, waste, combined waste, and other drainage pipes from any system to the sewer, and includes any drain for draining any group or block of houses by combined operation under order of Authority, but does not include stormwater drainage pipes.

“Educt vent” means an opening or pipe for the exit of air from, and the induction of draught in, a soil pipe, waste pipe, combined waste pipe, or drain.

“Engineer” means the Engineer of the Authority, and shall also include any officer or person appointed by the Authority for the purpose of discharging the duties or exercising the powers of the Engineer.

“External closet” means any closet other than an “internal closet”.

“Fittings” means all apparatus or appliances, together with their necessary appurtenances and connexions, for use in connexion with the plumbing or drainage system of any property, with the exception of fixtures and straight piping.

For the purpose of computing fees payable under this By-law, “fitting” includes any sanitary or plumbing fixture or each piece of equipment which is connected to or discharges its waste water through a waste outlet or to a common outlet.

“Fixtures” means all apparatus or appliances, together with their necessary appurtenances and connexions, which may be attached to the plumbing or drainage system of any property, and which are intended for the collection or retention of any wastes or waste waters for ultimate discharge into the sewerage system.

"Flat" means a suite of rooms used, or intended or adapted for use, as a separate habitation and comprised in a building containing one or more similar suites.

"Induct vent" means an opening or pipe for the admission of air to a soil pipe, waste pipe or drain.

"Interceptor trap" (or "boundary trap") means a trap for preventing the passage of air or gases from the sewer to the drain at some point between the sewer and the lowest inlet to the drain.

"Internal closet" means any closet which is entered from or has an opening into any building.

"Occupier" means the person for the time being in actual or constructive occupation of the premises.

"Owner" includes the person for the time being who receives or is entitled to receive the rent of the lands or premises in connexion with which the word is used, whether on his own account or as an agent of or as trustee for any other person, or who, if such lands or premises were let to a tenant at a rack rent, would be entitled to receive the rack rent from the occupier thereof.

"Premises" includes any house and any building whatsoever and any part of any house or building, and any garden, stable yard, or offices used together or in connexion with any house or building and every part thereof.

"Proper officer" means officer of the Authority authorized by such Authority in respect of, or whose duty it is to deal with or act in regard to, any acts, matters, or things in connexion with which the expression is used.

"Separate pipe system" means that type of plumbing installation in which separate pipes are provided for soil and waste discharges and for the ventilation of soil and waste fixtures and in which every waste pipe is connected to the drain through a disconnector trap.

"Sewer" means any conduit provided for the carriage of sewage and vested in the Authority.

"Sewerage District" means any area which under the Sewerage Districts Acts is proclaimed the Sewerage District of the Authority, and includes any area which is added to and forms part of such Sewerage District.

"Sewered property" means, as well as any sewered land or premises, any land or premises which have been declared by a general notice given by the Authority under the Acts to be deemed and taken to be a sewered property within the meaning of the Acts.

"Sewerage installation" of a property means all pipes and drains conveying household drainage, sewage, and trade wastes to the sewers of the Sewerage Authority, and all vent pipes, fixtures, fittings, apparatus, and appliances connected thereto.

"Sewerage system" includes all sewers, fittings, fixtures, appliances, plant, machinery, and any other sewerage works vested in the Authority.

"Slop sink" means any fixture other than a closet pan or urinal used for the discharge of soil or urine waters and provided with a flushing apparatus.

"Soil pipe" means any pipe which conveys the discharge from water closets, slop sinks, mortuaries, operating theatres, or urinals to the drain.

"Stack" means any vertical line of soil, waste, combined waste, or vent piping, with its offsets, if any.

"Trade waste" means the liquid refuse from any business, trade, or manufacturing property, other than domestic sewage, stormwater, or unpolluted water.

"Trap" means any fitting designed to retain a quantity of water to arrest the passage of air or gases through such a fitting.

"Waste pipe" means any pipe which conveys the discharge from any fixture, except water closets, slop sinks, mortuaries, operating theatres, or urinals, to a disconnector trap in the case of the separate pipe system or directly to the drain in the case of the combined pipe system.

"Water seal" or "trap seal" means the vertical distance between the dip and the crown weir of a trap.

"Wrought iron" and "sheet iron" include mild steel and mild steel sheet.

"Yard gully" means a drainage trap which is used externally and fitted with a dished top and grating.

INTERPRETATION.

In the construction of this By-law the meaning which, in the Acts, as assigned to any word shall be the meaning of the same word where occurring in this By-law, unless inconsistent with the subject-matter or context.

PART 1.—GENERAL REGULATIONS.

DIVISION 1.—APPLICATIONS FOR CONSENTS, ETC.

Section 1.—Application for the Authority's consent to connect with the sewerage system, or to do plumbing and drainage work connected therewith, must be made in writing by the owner of the property to be so connected or by his authorized agent.

Section 2.—Such application shall give the precise location of the property, the name of the owner, and the name of the person employed to do the work, and shall be in the form prescribed by the Authority. For any wilful misrepresentation in such application the owner or authorized agent as aforesaid shall be guilty of an offence against this By-law. No consent given by the Authority shall be deemed to authorize anything not stated in the application nor to confer or grant the right to lay a drain through any land intervening between the sewer of the Authority and the land proposed to be connected, and every owner or agent applying for the Authority's consent shall satisfy himself as to his legal right to drain through such intervening land, and he shall be solely responsible for any trespass or damage thereon or thereto.

Section 3.—Consents to make connexions with the sewerage system will be issued only when the plumbing and draining in the property to be connected is planned to be made in accordance with the rules for plumbing and draining hereinafter prescribed, and after such plan has been inspected and approved of by the proper officer appointed by the Authority for the purpose, or, in the case of new buildings, when a proper plan of the plumbing and of the drainage of the building into the branch of which the Authority shall have fixed the position, has been approved of in writing by the Authority. All connexions with drains or sewers and all plumbing and drainage connexions therewith shall be made under the direction of the proper officer of the Authority. No person shall be engaged or employed as a workman in the actual performance of any plumbing or drainage work unless he is the holder of a licence or permit issued by the Authority authorizing him to do such work. Any person who shall at any time or at any place make up, form, affix, alter, or repair, any fitting, pipe, bend, trap, or other thing connected or intended to be connected with the Authority's sewerage system, unless he be the holder of a licence or permit from the Authority authorizing him to do such work, shall be liable to a penalty not exceeding Twenty pounds.

If any person, whether he is or is not the holder of a plumber's licence or permit from the Authority, alters, removes, or in any way interferes with any drain, fitting, pipe, bend, trap, or other thing, which drain, fitting, pipe, bend, trap, or other thing is connected with the Authority's sewerage system, he shall, unless he has previously received consent, in accordance with the provisions of this section for the execution of such work, and such consent is in full force and effect, be guilty of a breach of this By-law and shall be liable to a penalty of not more than Twenty pounds.

Section 4.—Where the sanction, permission, authority, consent, approval, satisfaction, order, direction, opinion, indication or notice of, or from the Authority is necessary, whether specified in writing or otherwise, with regard to any act, matter, or thing mentioned in the By-law, the same may be given by and under the hand of the chairman of the Authority, or of the proper officer, personally or through an inspection officer appointed under him, who severally shall be competent to give the same and be authorized on behalf of the Authority to prescribe any conditions attaching thereto, and subject to and in accordance with which only the same shall be deemed to have been given.

Section 5.—If, after the receipt of a written application from the owner for modification or alteration of the By-law, the Authority shall be of the opinion that a compliance with any of the provisions of this By-law would in any particular case be vexatious or be needless in the interest of public health, it shall be lawful for the Authority, by resolution, to dispense with or forbid such compliance in whole or in part as it shall think fit, or to authorize or direct such a modification or alteration of

such provisions as shall, in its opinion, most nearly adapt the principle of those provisions to the particular case. It shall be unlawful to comply with any provision, or part of any provision, with which compliances shall have been forbidden, or to act contrary to or otherwise than as directed by such modification or alteration.

Notwithstanding the above stipulation, no technical provision or requirement of the By-law shall be modified or waived, except on the written recommendation of the Engineer.

DIVISION 2.—VARIATION OF BY-LAW.

Section 6.—Any permission for or approval of any variation of any of the provisions of this By-law which may be given by the Authority will be given only before the work in respect of which the variation is proposed has been commenced.

DIVISION 3.—PENALTIES, RECOVERY OF COST OF WORK, ETC.

Section 7.—Where anything is by this By-law directed to be done or forbidden to be done, or where any power is given to the Authority or any of its officers to direct or forbid anything to be done, and such act so directed to be done remains undone, or such act forbidden to be done is done, then, and in every such case, the person making default as to the said direction or prohibition respectively shall be guilty of an offence against this By-law.

Section 8.—Every person guilty of an offence against this By-law, not otherwise specially provided for by or under the authority hereof, shall be liable for every such offence, besides any costs or expenses which may be incurred in the taking of proceedings against such person guilty of such offence, as well as any costs or expenses which may be incurred in remedying such default, as particularly provided for in this By-law or the Acts, to a penalty not exceeding Twenty pounds, and to a further penalty of One pound for each day during which such offence is continued by such person after notice of the offence shall have been given by the Authority to him; and such penalty shall be recoverable notwithstanding that the Authority may not have chosen to exercise any power given to it by the Acts or by this By-law to remedy such default.

DIVISION 4.—HOUSE DRAINAGE PLANS—ALTERATIONS.

Section 9.—Copies of the Authority's plans and/or designs of individual house drainage will be furnished by the Authority upon application and payment for the same and subject to such conditions as follows:—

- (a) (1) Where the Authority designs the work and has same carried out for the owner, a charge shall be made equal to ten per centum (10 per cent.) on the capital cost of the work for designing, specifying, letting contract, and supervising all details in connexion with such work.
- (2) Consent for additions to and/or amendments of approved plans or to works previously approved will be made only on the application of the owner or his authorized agent, and on payment of a fee of Fifteen shillings (15s.).
- (b) When the Authority designs the work for the owner and the owner then carries out his own work—
 - (1) For plan of design, a fee of Three pounds (£3), plus Seven shillings and six pence (7s. 6d.) for each fitting.
 - (2) For making and/or examining any alterations or additions to a plan previously issued or approved by the Engineer, a fee of Fifteen shillings (15s.) shall be made by the Authority for each fitting or drain altered or added.
 - (3) For inspecting drains and testing by the Authority's inspector, a fee of Thirty shillings (30s.), plus Fifteen shillings (15s.) for each additional inspection necessary owing to faulty work.
 - (4) For inspecting plumbing by the Authority's inspector, a fee of Thirty shillings (30s.) for each ten (10) fittings or part of ten fittings in the installation, plus Fifteen shillings (15s.) for each additional inspection necessary owing to faulty work.
 - (5) For the final inspection by the Authority's Engineer and charting the work on the Authority's plans, a fee of Thirty shillings (30s.) for each ten fittings or

part of ten fittings in the installation, plus Fifteen shillings (15s.) for each additional inspection necessary owing to faulty work.

- (6) The engineer may during construction of the work order the owner to carry out such additions and/or amendments as may be necessary for the satisfactory completion of the work.

The house connexion will not be passed until the installation, together with the amendments ordered, have been completed to the Engineer's satisfaction.

- (c) Where an owner designs and carries out his own work—

- (1) For the supply of a block plan, a fee of Seven shillings and six pence (7s. 6d.). For tenements exceeding 4,000 square feet in ground floor area and/or properties exceeding 2 acres in extent, an additional fee of Seven shillings and six pence (7s. 6d.) shall be charged for each additional 4,000 square feet, or part thereof, and/or for each additional 2 acres, or part thereof.
- (2) The owner shall submit for examination a properly drawn design on tracing cloth or good quality paper and a type-written specification. The design and specification shall be supplied to the Authority in triplicate. The work shall not proceed until the owner's design and specification have been approved by the Engineer and the third copy returned to him with the official endorsement.
- (3) For the examination of the owner's plan of design and specification, a fee of Thirty shillings (30s.) for each plan of from one of five fittings, plus Seven shillings and six pence (7s. 6d.) for every fitting over five.
- (4) For examining any alterations or additions to a plan previously issued or approved by the Engineer, a fee of Seven shillings and six pence (7s. 6d.) shall be made by the Authority for each fitting or drain altered or added.
- (5) For inspecting drains and testing by the Authority's inspector, a fee of Thirty shillings (30s.), plus Fifteen shillings (15s.) for each additional inspection necessary owing to faulty work.
- (6) For inspecting plumbing by the Authority's inspector, a fee of Thirty shillings (30s.) for each ten (10) fittings or part of ten fittings in the installation, plus Fifteen shillings (15s.) for each additional inspection necessary owing to faulty work.
- (7) For the final inspection by the Authority's Engineer and charting work on the Authority's plans, a fee of Thirty shillings (30s.) for each ten fittings or part of ten fittings in the installation, plus Fifteen shillings (15s.) for each additional inspection necessary owing to faulty work.
- (8) The Engineer may during construction of the work order the owner to carry out such additions and/or amendments as may be necessary for the satisfactory completion of the work. The house connexion will not be passed until the installation together with the amendments ordered have been completed to the Engineer's satisfaction.

DIVISION 5.—MAINTENANCE AND DEFECTIVE WORK.

Section 10.—Any drain pipe, soil pipe, trap, water closet, urinal, sink, grease trap, or other fixture or fitting laid, used or constructed otherwise than in accordance with this By-law, or which shall in the opinion of the Authority, be or become bad or of defective quality, shall, upon notice in writing from the Authority to the owner or occupier of the property, be by such owner or occupier removed or repaired in the manner determined and within the time fixed by the Authority, and in each case such owner or occupier fails to comply with the requirements of the notice, he shall be liable to prosecution and a

penalty for an offence against the Acts, or the Authority may, if it thinks fit, remove or repair the said defective fitting and charge such owner or occupier of the premises with the cost so incurred, and will proceed for recovery of the same in a manner provided by the said Acts.

DIVISION 6.—LICENCES AND PERMITS.

Section 11.—(1) All plumbing work for sewerage shall be done and carried out only by licensed plumbers and/or by the persons in this section 11 hereinafter mentioned, but subject in all things to the conditions and terms of the said section.

(2) The Authority may, if it thinks fit, and subject to the provisions of sub-sections (3), (4), (7), and (8) of this section, issue a plumber's licence to any person who is the holder of a Certificate of Competency issued by the Sanitary Plumbers Examination Board of Victoria.

(3) The Authority before issuing such plumber's licence may require the applicant to satisfy it that he possesses the requisite knowledge of the Laws, By-laws, and Regulations relating to the sewerage system of the Authority, and it shall appoint officers to examine the said applicant as to his knowledge, and, after the consideration of the report thereon of such officers, may refuse to grant such licence, if, in its opinion, the applicant has not the requisite knowledge of such Laws, By-laws, and Regulations.

(4) Every person to whom a plumber's licence is to be issued shall, before the licence is issued to him, sign in a register, to be kept by the Authority, a declaration that he will conform to and comply with the conditions of the licence hereinafter contained and the By-laws and Regulations of the Authority.

(5) The Authority may, if it thinks fit, and subject to the provisions of sub-sections (7) and (10) of this section issue a permit to work as a plumber to any person who has passed the practical examination of the Sanitary Plumbers Examination Board of Victoria.

(6) In the event of the holder of a permit to work as a plumber being granted a Certificate of Competency by the Sanitary Plumbers Examination Board of Victoria, the Authority may issue a plumber's licence to him subject to the provisions of sub-sections (3), (4), and (7) of this section and upon his returning his permit.

(7) The Authority may refuse to grant a licence or permit to any person, or may suspend or cancel any licence or permit previously granted, if, in its opinion—

- (a) such person has been guilty of an offence against the By-laws and Regulations of the Authority;
- (b) such person has failed to comply with the instructions issued by any responsible officer of the Authority;
- (c) such person at any time or place has so conducted himself as to warrant, in the opinion of the Authority, the refusal, suspension, or cancellation of such licence or permit.

(8) On application for renewal, the Authority may renew any such licence or permit.

(9) No person, other than a plumber's apprentice, plumber's improver, the holder of a permit to work as a plumber, or the holder of a plumber's licence, shall be engaged or employed as a workman in the actual performance of any of the plumbing work for sewerage.

(10) No such plumber's apprentice, plumber's improver, or holder of a permit to work as a plumber, shall be permitted to work in the actual performance of, or to do, any plumbing work for sewerage, except under the supervision of a licensed plumber, who shall be responsible for such work and for compliance with the By-laws and Regulations of the Authority in respect thereof.

(11) "*Drainer's Licence*".—The Authority may issue a "drainer's licence" to any person who is to the satisfaction of the Authority competent to carry out the work of drainer, and for that purpose may require such person to satisfy it as to his competency by passing an examination conducted by the Engineer and such other examiners as the Authority may appoint or in such other manner as the Authority may determine, or in any particular case may decide that he has a thorough knowledge of the following subjects:—

Plans.—The reading of plans and the meaning of scales and of elevation, plan, and section drawing.

Levelling.—The use of the straight-edge, spirit level, and boning rods.

Excavation, Timbering, and Refilling.—The use of tools for excavation, the protection of trenches by timbering, the treatment of different soils, tunnelling, and tunnel timbering, precautions near buildings, and manners of refilling trenches and tunnels.

Drain-laying.—The preparation of the bottom of trenches, the laying and jointing of stoneware, cement, concrete, and cast-iron pipes, cement, bitumen, lead, and self-filling joints, laying of drains under houses and in soft ground, and the depth of drains below surface.

Drainage Details.—Junctions to sewers, diminishing of sizes of pipes, yard gullies, grease and other traps, inspection openings, and cast-iron drainage details.

Drainage Works.—The provisions of this By-law and of the Acts, insofar as they relate to the work and duties of drainers in regard to the construction, maintenance, and protection of the sewerage system and the construction and use of drains and drainage traps.

Candidates for drainers' licences shall give notice, in writing, to the Authority of their intention to submit themselves to examination, and this examination shall be at such a time and at such a place as shall be appointed by the Authority. Candidates must provide themselves with their own tools and materials, and pay a fee of 20s. for each examination.

Section 12.—The conditions upon which all plumbers' licences and permits and drainers' licences will be issued are:—

- (1) That every licence and permit will be subject to suspension or cancellation at the will of the Authority, and that all such licences or renewals thereof will expire on the 31st day of December next following.
- (2) That every holder of a licence from the Authority who shall have received the consent of the Authority to execute any works in connexion with sewerage or drainage, or who shall (where such consent of the Authority is not required before the execution of any such works) have notified the Authority of his intention to carry out such works—
 - (a) shall obtain permission when necessary for the execution of such works on, over or through any private property, or any streets, roads, parks, reserves, or other public places or properties; and
 - (b) shall pay any fees demanded by the Municipal Authority for opening any street, road, or thoroughfare, or otherwise in connexion with the work; and
 - (c) shall execute such works in accordance with the provisions of the Acts and of the By-laws made thereunder, and of any special directions or orders given or issued by the Authority or its proper officer; and
 - (d) shall use materials of good quality only and free from defects; and
 - (e) shall employ only competent operatives or assistants; and
 - (f) shall execute such works in a thorough and tradesmanlike manner to the satisfaction of the Authority as expeditiously as practicable, and leave site clean and undefaced; and
 - (g) shall in the execution of such works take such proper and necessary precautions that no accident or damage or unnecessary inconvenience may be directly or indirectly occasioned thereby; and
 - (h) shall restore any part of any street, road, or thoroughfare interfered with by the work to the satisfaction of the Municipal Authority having control thereof upon the completion of the work; and
 - (i) shall restore any other property interfered with by the work to the satisfaction of the proper officer of the Authority; and
 - (j) shall in all cases notify the proper officer immediately upon completion of any work in hand, promptly amend any defects therein, and again at once notify the said officer, and subsequently take steps forthwith to secure the certificates of satisfactory completion, and give the same to owner; and
 - (k) shall not interfere, remove, cut, or in any way damage any portions of any electrical, gas, water, or telephone installation, and/or any other municipal or

public utility or service. When portion of any such installations, including earth-wires, connexions, pipes, &c., interferes with the proper laying of house connexions and sewerage plumbing, the plumber shall communicate with the secretary or engineer of the utility or service concerned in order to arrange for that portion of the electrical, gas, water, telephone, or other installation to be so located as not to cause further interference; and

- (d) shall, when so directed by the Authority, make good at his own expense any defect found within twelve months of the date of completion any such work which, in the opinion of the Engineer, is due to faulty workmanship or defective material.

Section 13.—Prior to the issue of any licence or permit the person to whom the same is to be issued shall pay to the Authority the fee named hereunder:—

	s.	d.
For every plumber's licence ..	20	0
For every permit to work as a plumber ..	10	0
For every drainer's licence ..	10	0
For the renewal of any licence ..	5	0

DIVISION 7.—NEW BUILDINGS, ADDITIONS, ETC.

Section 14.—Every person who shall intend to erect a building on any property within the Sewerage District, or to rebuild or to make any alterations or additions to any such buildings shall, before commencing such work, give to the Authority fourteen (14) days' notice, in writing, of such intention and obtain a permit from the Authority; and such notice shall be accompanied by plans and sections of such intended buildings, alterations, or additions, showing their positions, dimensions, depths, and levels of foundations, cellars, or basements, all appurtenant walls, and fences, the intended lines of drainage, and the boundary of the land, which plans, &c., shall become the property of the Authority.

DIVISION 8.—GENERAL.

Section 15.—Any work or thing in respect of or in connexion with sewerage in the Korumburra Sewerage District shall conform to the requirements of Chapters 38 to 42 of the Uniform Building Regulations, Victoria, as amended from time to time, and to this By-law where not inconsistent therewith.

PART 2.—GENERAL REGULATIONS.

DIVISION 9.—USE OF SEWERS AND DRAINS—PROHIBITION OF CERTAIN DISCHARGES.

Section 16.—*Use of Sewers and Drains.*—The owner and the occupier of any seweraged property shall discharge into the sewerage system—

- all faecal matter, urine, household slops, and household liquid refuse from such property, and such other polluted water from stables, washing areas, manure bins, basements, cellars, and roofed yards; and
- such trade or manufacturing liquid refuse as the Authority may authorize, subject in each and every case to such conditions as it may impose.

Section 17.—*Prohibited Discharges.*—The deposition or discharge of any of the following substances into any drain is prohibited:—

- Any animal matter other than is specified in section 16; fleshings, wool, hair, dead animal, grease, dust, ashes, rubbish, garbage, offal, vegetable and fruit or their parings, rags, oil, silt, mud, sand, gravel, or like substances, or any other substances which are in the opinion of the Authority or its proper officer liable to be injurious to any part of the sewerage system or to employees of the Authority engaged in the operation or maintenance of same.
- Any petrol or other inflammable or explosive substance, whether solid, liquid, or gaseous.
- Any rain, roof, surface, or flood waters, except by special permission of the Authority.
- The contents of any night-soil cart, cesspool, or privy.
- Any liquid, trade waste or other substance which has not been neutralized to the approval of the proper officer of the Authority, or which is

above the temperature of 100 degrees Fahrenheit, or such lower temperature as may be prescribed by the Authority, having regard to the special circumstances of the case.

- Any liquid which contains such percentage of common salt or any other mineral, salt, acid, or gas, as is, in the opinion of the proper officer of the Authority, injurious to, or liable to form compounds injurious to, any part of the sewerage system or to employees of the Authority engaged in its operation or maintenance.

DIVISION 10.—TRADE WASTES.

Section 18.—*Conditions of Discharge.*—No person shall discharge any trade or manufacturing liquid, refuse, or waste into any sewer, unless and until the following conditions are complied with:—

- Application for permission to discharge any such trade wastes shall be made, in writing, and accompanied by plans and specifications of the work to be done and of the apparatus to be used, and shall include such details concerning the nature of the waste and the quantity and rates of discharge of the proposed effluent as considered necessary by the proper officer of the Authority.
- The permission of the Authority, in writing, shall be obtained and an agreement containing a covenant to comply with the By-law and with any further stipulations required by the Authority shall be executed. The volume of liquid refuse or waste discharged shall, if ordered, be measured and determined by meter or by some other approved means of measurement. The maximum daily aggregate quantity of effluent which may pass from any trade premises into a sewer, the maximum permissible rate of such discharge, the size and capacity of the drain or pipe for conveying such effluent from the trade premises to the sewer, and the hours during which such flow will be permitted shall be determined by the Authority.
- All such liquid refuse or waste shall be passed through such settling, screening, and/or neutralizing chambers and/or such other appliances and/or otherwise treated as ordered or approved by the Authority to ensure that the resulting effluents shall comply with the conditions of the agreement.
- Every settling, screening, neutralizing, or other chamber, appliance, or apparatus for the treatment of trade wastes in accordance with this By-law shall be cleansed, operated, and maintained by the occupier at his own expense and at such intervals as may be considered necessary by the Authority or its proper officer to ensure the efficient operation of such chamber, appliance, or apparatus, and in no case shall such chamber, appliance, or apparatus be altered without the approval, in writing, of the Authority first being obtained.

DIVISION 11.—SUB-SOIL WATER.

Section 19.—The discharge of sub-soil water into sewers shall be prohibited except by permission of, and under conditions approved by, the Authority.

DIVISION 12.—INSPECTION TESTS AND MAINTENANCE.

Section 20.—*Notice.*—The owner or his authorized agent, or the plumber, drainer, or contractor, shall give at least forty-eight (48) hours' notice to the Authority, in writing, of his intention to commence work and of work ready for inspection. All work shall be left uncovered and accessible for examination until inspected and approved.

The contractor carrying out any work shall, within seven (7) days of the completion of such work, file in the office of the Authority on forms furnished for this purpose, a correct statement of the work done and the cost thereof. Such statement shall be countersigned by the proper officer of the Authority, and a certificate embodying such statement shall be forwarded to the contractor.

Section 21.—*Inspection.*—All drains, wastes, fittings, joints, fixtures, &c., will be inspected by the proper officer of the Authority to ensure compliance with the By-law and approved plan.

Section 22.—*Tests.*—Drains, whether laid by the Authority's workmen or others, must be thoroughly tested in every case before being passed by the Authority's officers. The proper officer of the Authority may require the application of the water or smoke tests, or such other tests as he may order or approve.

Section 23.—Water Test.—The water test may be applied to the drainage and/or plumbing systems and their fittings in their entirety or in sections. It shall be applied by hermetically sealing all openings below the top of the section to be tested. The system shall then be filled with water to a height of 6 feet above the highest point of the section, or, if considered necessary, to such additional height as the proper officer may order, and every joint carefully examined for leaks.

In testing drains the water shall be maintained at this height for a period of fifteen minutes by the addition of a measured quantity of water as required. The amount of water added in the fifteen minutes shall not exceed 2 gallons for every 50 joints of 4-in. drain or sewer, and shall not exceed 3 gallons for every 50 joints of 6-in. drain or sewer, or proportionately for a lesser or greater number of joints.

Section 24.—Smoke Test.—The smoke test shall be applied by hermetically sealing all openings into the section to be tested, and forcing into the system thick smoke to a pressure equivalent to 1 inch of water, by means of a smoke test apparatus. Every joint shall then be carefully examined for leaks.

Section 25.—Equipment, &c.—The equipment, material, power, and labour necessary for the inspection and tests shall be furnished by the contractor, plumber, or drainer.

Section 26.—Defective Work.—Any pipes, fittings, fixtures, or other materials or apparatus found to be defective shall be removed and replaced by sound materials or apparatus; and all defective workmanship shall be made good to the satisfaction of the Engineer or his representative, and to comply in all respects with the provisions of the By-laws. Should the contractor fail to replace such defective materials or to make good such defective work within fourteen (14) days of his having been ordered, in writing, by the Engineer so to do, the work or replacement may be carried out by the Authority at the contractor's expense.

Section 27.—Maintenance by Contractor.—Every person who holds a licence from the Authority and who executes any work in connexion with sewerage, drainage, and/or sanitary plumbing, shall make good within fourteen (14) days and at his own expense, when directed by the Engineer so to do, any defects which occur in such works within twelve (12) months of the date of their completion, and which are, in the opinion of the Engineer, attributable to faulty workmanship or materials.

Section 28.—Maintenance by Owner or Occupier.—The owner or occupier of every premises shall, at his own expense, maintain in efficient working order and in a clean and hygienic condition the whole house connexion work, including all traps, neutralizers, or other appliances, installed on such premises. Should the owner or occupier of any premises fail or neglect satisfactorily to maintain and cleanse such appliances, the Authority may, after twenty-four (24) hours' notice, in writing, have the necessary work carried out at the expense of the owner or occupier.

DIVISION 13.—MATERIALS AND WORKMANSHIP.

Section 29.—Materials.—All materials, pipes, bends, junctions, fittings, fixtures, and apparatus shall be of the best of their respective kinds, sound and free from defects, and shall be approved by the proper officer.

Section 30.—Testing.—All materials, pipes, bends, junctions, fittings, fixtures, and apparatus shall be submitted for examination and/or test, and shall not be placed in position until passed and stamped by the Authority. Such testing of materials shall be paid for by the person submitting same, whether passed or rejected, and shall be done at such time and place, and at such rates, as may from time to time be fixed by the Authority.

Section 31.—Workmanship.—All work shall be executed in a thorough and workmanlike manner and to the satisfaction of the proper officer.

Section 32.—Precautions.—Adequate precautions shall be adopted by the person carrying out the work to prevent injury to workmen, property, or the public, and the Authority will accept no responsibility for claims for injury arising from the inadequacy of such precautions.

Section 33.—Concrete.—Concrete, unless otherwise ordered, shall consist of 1 part Portland cement, 2 parts clean, sharp sand and 4 parts hard metal, shingle, or gravel properly graded from $\frac{1}{4}$ inch to not exceeding 1-in. gauge, and shall be thoroughly mixed with clean water to such consistency as ordered or approved by the Engineer of the Authority.

The cement, sand, and aggregate shall be thoroughly mixed and the whole batch completely turned over three times in the dry and turned over again at least three

times while the water is being added. If a concrete mixer is used the minimum time of mixing in the machine after all the materials have been added shall be two minutes. All concrete shall be placed within twenty minutes of the time of mixing.

Section 34.—Cement Mortar.—Cement mortar, unless otherwise ordered, shall consist of 1 part Portland cement and 2 parts clean, sharp sand, properly mixed with an approved proportion of clean water. Cement mortar shall be used within twenty minutes of the time of mixing. Retempering is forbidden.

PART 3.—DRAINAGE.

DIVISION 14.—DRAINAGE, GENERAL.

Section 35.—(1) Every premises shall be separately drained unless a combined drain shall have been ordered or approved by the Authority. Owners desiring to have the drainage of their properties combined must sign a request for a combined drain, and obtain the approval of the Authority. In any case in which it appears to the Authority that any properties may be drained more advantageously in combination than separately the Authority may order that those properties be drained by a combined operation.

(2) In any case where a combined drain serves two or more properties the Authority, with the consent of the owners of the properties served by such combined drain, may take over such combined drain, and thereafter such combined drain shall be and remain a sewer of the Authority.

(3) In every case of a combined drain the Authority will determine as between the respective owners and occupiers of the properties drained thereby, the proportions in which the cost of such combined drain shall be paid. In every case of the occurrence of an obstruction in a combined drain the Authority will also determine by whom and in what proportion the cost of removing such obstruction and/or effecting any necessary repairs to drains shall be paid, together with administrative and engineering charges incurred in reaching such decision.

(4) Owners and occupiers of premises are responsible for clearing stoppages in drains within their premises, or between their premises and the sewers into which the branches lead, but must employ only licensed plumbers or drainers to clear such stoppages.

(5) Before a licensed plumber or drainer commences to clear a stoppage in a drain he must notify the Authority, in writing, of the time when he intends to clear the stoppage, so that the Authority's proper officer may attend and pass the work in accordance with the provisions of the Acts.

Section 36.—Size of Drains.—Every drain shall be of adequate size for the drainage of the property to be served, in accordance with the requirements of section 89, with a minimum diameter of 4 inches.

Section 37.—Materials.—All drain pipes, bends, junctions, and fittings used shall be of glazed stoneware, concrete, cast iron, or other approved material, provided that the proper officer of the Authority may prohibit the use of any of the above mentioned where the circumstances or conditions are considered unfavourable.

Section 38.—Cast iron Pipes.—Cast iron drainage pipes and their fittings shall comply with the standard approved by the Authority for cast iron pipes and their fittings of similar diameter, but in the event of the issue by the Standards Association of Australia of an Australian Standard Specification for such pipes, and of the acceptance of such standard specification by the Authority, all cast iron pipes and fittings shall be in accordance with this standard specification from a date to be fixed by the Authority.

Section 39.—Interceptor Traps.—Where directed by the Authority, but not otherwise, an interceptor trap shall be fixed in the drain laid from any property to the sewer. Such trap shall be fixed as near as practicable to the boundary, and wherever practicable shall be within the boundaries of the property. If required by the Authority the interceptor trap shall be extended to ground level and fitted with an approved cover or an inspection chamber shall be provided for the trap.

Section 40.—Inspection Chambers.—All drains shall, wherever directed by the Authority, join in an inspection chamber at least 3 feet long by 2 feet wide. The portions of the drains crossing the floor of the inspection chamber shall be connected either in a straight line or by curved junctions in the floor of the chamber. All inspection chambers shall be cement rendered (2 parts sand and

1 part cement) to a smooth surface, and made water-tight. The inspection chamber shall be provided with a closed cover of approved type and special ventilation shall also be provided if considered necessary by the Engineer.

Section 41.—Inspection Openings.—Every line of drain shall be provided with an inspection opening inside and within five (5) feet of the boundary line of the property, at each junction not provided with an inspection chamber, at each change of direction, at each fixture, and in no case at greater than 30 feet intervals, and in paved areas these shall, if considered necessary by the proper officer of the Authority, be brought to the surface and furnished with approved airtight covers. The area of an inspection opening shall not be less than the area of the drain. Inspection openings, inspection junctions, or branches shall be set in an approved manner to facilitate rodding.

Inspection openings in stoneware or concrete drains shall be sealed by means of discs, approved by the Authority, fixed with cement mortar and capable of being easily removed without damage to the pipes, or otherwise as directed by the Authority.

Section 42.—Gratings.—Every inlet to a drain other than from a water closet shall be effectively protected by an approved grating of ample area. Gratings to disconnect traps and gully traps shall be securely fixed. The aggregate area of the apertures in any grating covering a ventilation opening shall be not less than the sectional area of the pipe or drain ventilated by such opening. Every opening for ventilation shall at all times be kept perfectly free from obstruction.

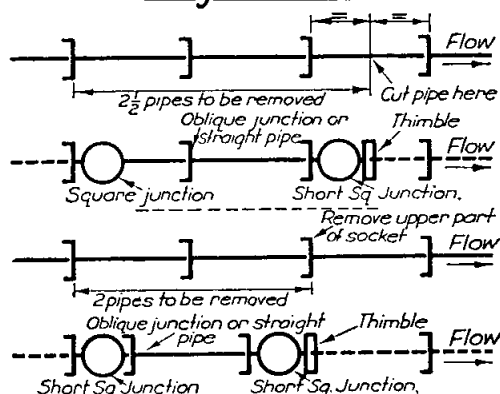
Section 43.—Drain Openings Not in Use.—The ends of all drains not immediately connected with the plumbing fixtures shall be securely closed with water-tight imperishable materials.

If such drains be of stoneware or concrete, a stoneware, cast iron, or other approved disc shall be cemented in; if of wrought iron, a plug shall be screwed on the end; if of cast iron, a cast iron plug shall be caulked in with lead.

Section 44.—Replacing or Inserting Pipes.—Where it becomes necessary to remove a pipe to clear a stoppage, or to insert a pipe or branch in an existing stoneware or concrete drain, the work shall be carried out by one of the following methods:—

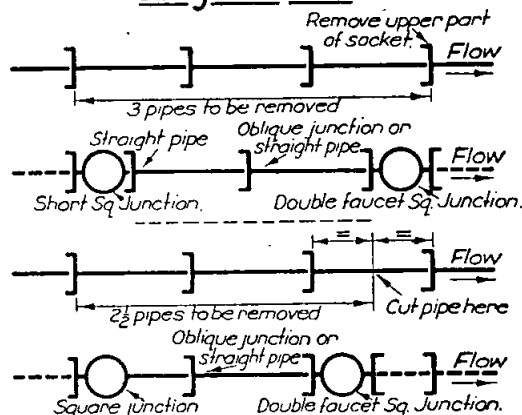
- (1) The pipe so removed shall be replaced by an inspection pipe or inspection junction of the same length by—
 - (a) removing the top half of the socket of the new pipe and of the existing downstream pipe, but leaving the bottom half intact in each case and surrounding the joints with concrete not less than 3 inches thick; or
 - (b) using an approved split pipe with double collar surrounded with concrete; or
 - (c) removing a length of not less than three (3) pipes, replacing the centre pipe by an inspection pipe, and dropping the pipes back into place without springing or cutting.
- (2) A length of not less than three (3) pipes may be removed, the two outer pipes replaced by inspection pipes and the pipes dropped back into place without springing or cutting.
- (3) Not less than two (2) pipes shall be removed and replaced with pipes of the same length and of the description shown in the diagram No. 1 hereunder. An approved thimble shall be used for making the joint at the downstream existing pipe.

Diagram No 1



(4) Not less than two and one-half (2½) pipes shall be removed and replaced with pipes of the same total length and of the description shown in the diagram No. 2 hereunder. An approved double faucet square junction shall be used to connect to the downstream existing pipe.

Diagram No 2



Section 45.—Use of Concrete.—Concrete shall be used in each of the following cases:—

- (a) Around and under yard gully basins—the exposed surfaces to be rendered in cement mortar.
- (b) Around the top of educt vent and induct vent pipe sockets were exposed.
- (c) Around interceptor trap covers and tops of disconnecter traps where the surface is not paved.
- (d) Under and around bends rising vertically off oblique branches, and under bases of all drainage traps.
- (e) Around drains where such drains are, in the opinion of the proper officer, liable to be affected by tree roots.
- (f) If required by the proper officer, for anchor blocks on steep grades, in bad or refilled ground, around jump ups, and in any place where the pipes have insufficient cover or are liable to be affected by traffic.

DIVISION 15.—BASEMENT AND CELLAR DRAINAGE.

Section 46.—Fixtures.—No water closet, urinal, and/or other fixture shall be placed in any cellar or basement or on any floor below ground level, unless by consent of the Authority previously obtained and subject to such conditions as the Authority may impose, and then only when in the opinion of the Authority other provision cannot be made. The owner shall submit such plans and/or other information as the Authority may require and shall undertake, in writing, to accept all liability for damage that may occur; provided always that if such fixtures and their surroundings are not kept in a sanitary condition, or if the purpose for which such cellar, basement, or floor below ground level is used, be changed, such consent may be revoked by the Authority at any time and that upon fourteen (14) days' notice of revocation such fixture shall be abolished by the owner.

Section 47.—Prevention of Back Flow.—Where such cellar, basement, or floor below ground level is at such a level as may, in the opinion of the responsible officer, involve risk of back flow in the event of the sewer becoming overcharged, the sewage from all fixtures therein shall be raised by ejector, siphon, or other approved mechanical appliance to such height as ordered and discharged into the sewer as and where directed.

Section 48.—Seepage Drains.—In no case shall seepage drains from cellars, basements, or any floor below ground level be discharged into a sewer without the consent of the Authority. Where such discharge is permitted, the seepage shall be raised by ejector, siphon, or other approved mechanical appliance to such height as ordered, and discharged into the sewer or elsewhere as and where directed.

DIVISION 16.—POLLUTED AREAS.

Section 49.—Connexion.—The Authority shall authorize or require that any of the following places, namely, stables, cow sheds, dairies, market places, abattoirs, areas for washing vehicles, and any other polluted place, be connected with the sewers, subject to such conditions as the Authority may impose.

Section 50.—Conditions Governing Connexion.—No such connexion shall be made unless the following conditions have been complied with:—

- (a) The place to be connected shall, if required, be so roofed as to prevent the entry of rain water from it to the sewers, and in no case shall rain water be permitted to discharge on to such place from adjoining surfaces.
- (b) The place to be connected shall be paved above the level of the yard with approved materials, and graded to the satisfaction of the proper officer of the Authority.
- (c) The drain from any such place shall be provided with an approved silt trap with a removable grating and connected with the drain inside the boundary line of the property. A water tap connected with a satisfactory water service shall be provided in a suitable position over the area.

Section 51.—Manure Bins.—

- (a) Manure bins must be provided for all stables or cow yards, where the local municipal By-laws demand their construction, or where the locality is closely built on.
- (b) All the manure bins must have the inside surfaces rendered with cement mortar, and must be impervious throughout, and provided with an approved close-fitting cover. Walls of new manure bins must, unless otherwise approved by the Engineer, be at least nine (9) inches in thickness, built of brickwork laid in cement mortar. If an outlet pipe be provided for a manure bin, it must be properly connected with the Authority's sewers. Branches in house drains must be provided in all cases where manure bins exist, for their connexion whenever the Authority shall deem it necessary.

DIVISION 17.—PIPE TRENCHES.

Section 52.—The trench for the house drain from any property shall be so dug as to meet the Authority's sewer at the position provided or to be provided for the connexion.

The material from the trench shall be so placed as to cause the least possible obstruction and inconvenience to the public.

Proper barriers and lights shall be maintained to guard against accident during the progress of the work.

In refilling the trench selected refilling shall first be deposited around and over the pipe to a depth of 12 inches and carefully consolidated, after which the remainder of the trench shall be filled in layers and rammed or flooded, as ordered or approved by the proper officer.

No stone shall be used in refilling until earth or gravel has been placed over the pipe to a depth of twelve (12) inches or more if directed.

On no account shall any water, sand, or other prohibited matter be allowed to enter the sewer during the progress of the work.

On completion of refilling the surface shall be restored as nearly as possible to the same condition as it was in before operations were commenced, unless the owner, in writing, otherwise requires.

DIVISION 18.—LAYING DRAINS, ETC.

Section 53.—Position and Line.—Every drain and every fitting, &c., connected therewith shall be laid and fixed where directed by the proper officer of the Authority. As far as possible all drains shall be laid in straight lines; where changes of direction occur they shall be made in manholes, or by a suitably curved pipe with an inspection opening on each straight pipe next adjoining the curve, or by installing an inspection branch in the curve itself, or by such other means as the proper officer may direct.

Section 54.—Oblique Junctions.—Where any drain joins another drain, or a sewer, the junction shall be made obliquely at an angle of not greater than forty-five (45) degrees with the direction of flow of such drain or sewer.

Section 55.—Connexion to Sewer.—The position of the Authority's connexion to any premises shall be located before the commencement of any drain excavation. The disc stopper at the point of connexion to the sewer shall be carefully removed so as not to injure the socket or allow any debris to enter the sewer.

The first pipe in the drain shall have an inspection opening.

Section 56.—Gradients.—All drains shall be laid on even gradients, and, except by special permission, in writing, from the proper officer, such gradients shall not be less than the following:—

4-in. diameter	..	..	1 in 40
6-in. diameter	..	..	1 in 60
9-in. diameter	..	..	1 in 80

In cases where the grades of drains are steeper than 1 in 15, concrete anchorage blocks shall be placed at intervals of not more than thirty (30) feet.

Such blocks shall be let into the sides of the trench at least six (6) inches on each side and shall extend not less than three (3) inches above and below the barrel of the pipe and for a length of twelve (12) inches along the pipe.

Section 57.—Depth of Drains.—Drains of stoneware or concrete pipes, unless bedded on and encased in concrete of not less than four (4) inches thick over the barrel of the pipe, shall be laid at a depth to the top of the socket of the pipe of not less than the following:—

- (a) In public thoroughfares, rights-of-way, or other open spaces subject to vehicular traffic—two (2) feet.
- (b) In private property not subject to vehicular traffic—one (1) foot.

No person shall alter the surface over any drain so as to deprive it of the minimum depth of cover specified by the preceding paragraph, unless approved measures are adopted to protect the drain.

Section 58.—Laying Drains.—All pipes shall be laid to such lines and grades as may be shown on the plans or directed, and except where otherwise ordered shall be bedded on approved sand or other approved bedding material up to one-third of the diameter of the pipe and so that there shall be at least two (2) inches of the bedding material below the barrel of the pipe in the case of earth-bottomed trenches and up to the horizontal diameter of the pipe, and so that there shall be at least three (3) inches of the bedding material below the barrel of the pipe where laid in trenches in rock.

In water-charged ground, or where the foundation is bad, or near the roots of trees, or where directed, the drain shall be formed of cast iron pipes, or, if of stoneware or concrete pipes, they shall be bedded on and encased in concrete as ordered, and, if ordered, supported upon approved timber foundations as directed. The thickness of concrete encasing and the form of concrete haunching shall be as directed by the proper officer.

Drops or bends in vertical or inclined drains shall have a concrete support placed under and around the drain as directed.

DIVISION 19.—DRAINS UNDER BUILDINGS.

Section 59.—Every drain shall, as far as practicable, be so constructed as not to pass under any building or out-building. When a drain does pass under a building or out-building it shall, if practicable, be laid in a direct line for the whole distance beneath such building or out-building, and shall have approved means of access for rodding outside the walls of the building or out-building and also, if directed by the Authority, beneath the building or out-building. The pipes used shall be of stoneware or concrete, surrounded by not less than four (4) inches of concrete, or of cast iron.

In any case in which pipes pass through or under walls, approved provision shall be made to prevent injury to the pipes by settlement, and, in outer walls, to prevent the ingress of vermin.

DIVISION 20.—JOINTS, DRAINAGE.

Section 60.—Stoneware and Cement Pipes.—Joints of stoneware and cement pipes shall be filled in solidly with cement mortar neatly splayed off, or with other approved manner. After each joint is made the interior of the joint shall be wiped clear of surplus mortar before the next pipe is laid.

Section 61.—Cast Iron Pipes.—All joints in cast iron pipes must be stemmed with approved gaskets and so filled and caulked with lead or other approved material as to make them gas and watertight.

All connexions between stoneware or concrete pipes and cast iron pipes shall be made as for joints in stoneware or concrete pipes.

DIVISION 21.—DRAINAGE TRAPS.

Section 62.—Trapping of Inlets.—Every inlet to any drain other than inlets provided for ventilation in accordance with this By-law shall be provided with an approved trap. No inlets to any drain connecting directly with a sewer shall be constructed within a building or outbuilding, other than such inlets necessary for the apparatus of any water closet, urinal or slop sink.

Section 63.—Classes of Traps.—Five classes of traps shall be used:—

- (a) "Traps" for intercepting gases only, which shall be of round section and self-cleansing form, but not such as to empty by momentum or suction.
- (b) "Silt traps" for intercepting both gases and solids, which have slightly tapered sides, flat bottom, and rounded angles, and which shall be provided with approved means for catching and removing solids.
- (c) "Grease traps" for solidifying and collecting grease, fatty domestic wastes, and other semi-fluid or viscous material liable to foul the pipes. The grease trap shall be designed for the requirements of the particular drain. The design and capacity shall be to the approval of the Engineer. The interior surfaces shall be tiled, and it shall be equipped with non-corrodible baffles, the whole trap being designed for easy cleaning.
- (d) "Acid traps" or "neutralizers" for neutralizing acid or other aggressive water prior to its entering the house drains.
- (e) "Oil traps" for collecting all kinds of oil, which shall be of such form as approved.

The term "yard gully" is applied to traps (a) where they are used externally and fitted with dished tops and gratings. The tops of inlets of all disconnector traps must be at least six (6) inches above the surface of the surrounding ground.

Section 64.—Water Seal.—Every trap must have a water seal of at least half the diameter of the outlet pipe, but in no case of less than two (2) inches.

Section 65.—Provision of Yard Gullies.—A yard gully shall be provided in the yard of every property as near as practicable to the kitchen or back door, with a water tap connected with a satisfactory water service placed over it at a height of not less than two (2) feet, unless other approved provision is made for taking household liquid refuse. No yard gully shall be situated within a building or out-building.

Section 66.—Details of Yard Gullies.—Yard gullies shall be fitted with dished tops and gratings, the dished top being in one piece with the trap or jointed thereto by spigot and faucet, or as otherwise approved.

The depth of the dished top to the grating shall not be less than six (6) inches. The grating to every gully trap shall not be less than six and seven-eighths (6 $\frac{7}{8}$) inches over all, and the grating to every disconnector trap shall be convex in section, with an opening of suitable outlet capacity. Every grating shall be fixed down in an approved manner with bitumen or wedges of lead.

Section 67.—Kerbing, Etc. to Yard Gullies.—Yard gully basins and the dished tops of silt traps shall be so surrounded with an approved impervious kerbing as to prevent the access of surface water to the drains, and, if directed, the wall at the rear of the gully or silt trap, if of brick or stone, shall be cement rendered to the height of the top over same and if of wood the wall shall be provided with an approved galvanized sheet iron apron. The internal diameter of kerbing around gully traps measured from the face of cement rendering shall not be less than fifteen (15) inches, and shall be neatly rounded to meet the gully top.

DIVISION 22.—VENTILATION.

Section 68.—Vents on Main Drain.—The main drain shall be ventilated at its upper end by a pipe ventilator erected vertically, and such ventilator may be a soil vent pipe or combined waste vent pipe.

If the drain is provided with an interceptor trap, there shall be in addition a ventilator connected to the interceptor trap shaft. In such cases there shall, wherever practicable, be a difference in height of not less than six (6) feet between the tops of the vents at the upper and lower ends of the drain, respectively.

Section 69.—Vents on Branch Drains.—Where the length of a branch drain measured along the centre-line of pipes, including the drop, if any, from the centre-line of the main drain to the centre of the outlet side of the water seal of the highest drainage trap exceeds twenty (20) feet, such branch drain shall be vented in accordance with the provisions of section 70.

Section 70.—Size of Drainage Vents.—Drainage vent pipes shall, unless otherwise ordered, be of not less than four (4) inches diameter in the case of educt vents and not less than three (3) inches diameter in the case of induct vents, with the provision that where more than one educt vent is provided the vent on the longest line of drain shall be not less than four (4) inches diameter, and all others of not less than three (3) inches diameter, but in no case shall a drainage vent be of smaller diameter than necessary to comply with the requirements of section 90.

Unless otherwise ordered or approved by the Authority, every such vent pipe shall be without return bend and provided with approved basket end, educt, or induct cowl as directed.

Section 71.—Materials, &c., for Drainage Vents.—Drainage vents pipes situated wholly outside of buildings or out-buildings shall be of cast iron, galvanized wrought iron, galvanized sheet iron, or other approved material above ground, and of stoneware or concrete or other material approved by the Authority beneath the surface of the ground.

All galvanized sheet iron vent pipes shall be double galvanized with longitudinal joints grooved, welded, or riveted, and circumferential joints riveted and soldered, and shall be of not less gauge than twenty for 3-in and 4-in. diameter pipes and eighteen for 6-in. pipes. Where ordered by the proper officer, the first six (6) feet above ground shall be of cast iron or other approved material.

Drainage vent pipes inside a building or out-building shall, unless otherwise approved, be of cast iron, of soil pipe strength, or of galvanized wrought iron.

Section 72.—Induct Vents.—Every induct vent shall be securely supported in a manner approved by the Authority or its proper officer.

Section 73.—Materials, &c., for Vents of Soil or Waste Pipes.—Vent pipes shall be of cast iron, wrought iron, lead, solid drawn copper, or brass, except that where the vent pipe is entirely outside a building, grooved sheet copper or grooved welded or riveted double galvanized sheet iron vent pipes may be used, but such sheet copper or sheet iron vent pipes shall not be used at a level lower than two (2) feet above the level of the highest fixture served thereby.

Lead vent pipes shall be of not less than 7-lb. lead for use with water closets, urinals, or slop sinks, and of not less than 6-lb. lead for use with other fixtures.

Solid drawn copper or brass vent pipes shall comply with the requirements of section 102 for waste or soil pipes.

External vent pipes of sheet copper or galvanized sheet iron shall be of a gauge not less than the following:—

1 $\frac{1}{2}$ -in., 2-in., 2 $\frac{1}{2}$ -in. diameter	..	22 gauge.
3-in. and 4-in. diameter	..	20 gauge.
6-in. diameter	..	18 gauge.

Section 74.—Soil Vent Pipes.—In all cases the upward extension from the soil or combined waste pipe for ventilation shall pass in as direct a manner as possible above and, if necessary, through the roof.

Section 75.—Anti-siphonage Vents.—(a) Loss of water seal in traps must be prevented by proper ventilation in accordance with the requirements of section 90. Such anti-siphonage vents from fixtures shall be carried up in accordance with section 76 or joined to the branch or main vent above the level of the fixture, unless special permission to the contrary is granted by the Authority.

(b) These vent pipes shall connect to the waste, combined waste, or soil pipe on the opposite side of the water seal to the fixture at a point not less than three (3) inches nor more than twelve (12) inches from the crown of the trap, except in the case of baths and closet pans, when the vent pipe shall be not more than four (4) feet from the crown of the trap. No other fixture shall be connected to the soil waste or combined waste pipe between anti-siphonage vent and the fixture which it serves.

(c) Individual anti-siphonage vents may be omitted on the waste pipes of lavatory basins, sinks, baths, showers, and other flat-bottomed fixtures, provided that:—

- (1) the trap on the outlet of the fixture is of an approved non-siphoning type; and
- (2) the length of the waste pipe from the outlet of the trap to the disconnector trap or vertical waste pipe does not exceed a length approved by the Authority.

Section 76.—Height of Vent Pipes.—Except as provided in section 79, every vent pipe extending upwards from a soil or drain pipe shall be carried not less than six (6) feet higher than any door, window, or other opening into a building within a distance of thirty (30) feet thereof, and in any case every duct vent shall be carried at least eighteen (18) feet above ground level and six (6) feet above the level of the eaves or coping.

Every vent pipe extending upwards from a waste or combined waste pipe or disconnector trap shall be carried four (4) feet above any door, window, or other opening into a building within fifteen (15) feet thereof, and in any case at least two (2) feet above the level of the eaves or coping.

Any vent pipe which extends into a gable of a building shall be carried at least two (2) feet above the point of intersection with the roof. Where necessary, in the opinion of the Authority or its proper officer, vents shall be carried to such additional heights as may be required to prevent effectually the escape of foul air into any building within the vicinity.

Vent pipes shall, where necessary, be provided with sufficient clips or stays to support them effectively.

Section 77.—Ground Vents.—Ground vents may be used on boundary traps when situated not less than thirty (30) feet from any window, door, or other opening into a building.

Section 78.—Chimneys.—No chimney shall be used as a ventilator to any drain, soil, combined waste, or waste pipe.

Section 79.—Vents Near Chimneys.—Vents must, as far as possible, be kept away from chimneys and ventilating air shafts.

Where a ventilator pipe terminates six (6) feet or more from a chimney opening or ventilating air shaft, the requirements of section 76 shall apply, but where the distance is less than six (6) feet the vent pipe shall, provided it is at least eighteen (18) feet long, terminate not less than two (2) feet below the top of such chimney or air shaft.

Section 80.—Vent Pipe Grades.—All vertical lines of vent pipe shall connect, full size, at their bases with a soil, waste, combined waste, or drain pipe at an angle of not less than forty-five (45) degrees to the horizontal and shall extend in undiminished size above the roof or be connected to the soil, waste, or vent stack, in compliance with the requirements of section 81 on a grade of not less than 1 in 40.

All offsets shall be at a grade of not less than forty-five (45) degrees to the horizontal.

Vent pipes shall not be used as waste or soil pipes.

Section 81.—Combining of Vents.—The various vents may be combined by branching together, or vent pipes may be branched into a soil, combined waste, or waste pipe above the level of the highest fixture, provided that, in the case of the separate pipe system, only vents which serve traps of the same class shall be branched together, and that soil vents are branched into soil pipes and waste vents into waste pipes only.

Section 82.—Galvanized Sheet Iron Vent Branches.—Where a branch is required to an existing galvanized sheet iron vent pipe, a brass saddle piece, bolted and soldered to the vent, shall be used.

Section 83.—Vents in Out-buildings.—Galvanized sheet iron vent pipes may be used inside external water closets, stables, or open out-buildings, but where liable to damage shall be protected as directed by the proper officer.

Section 84.—Pipe Clips, &c.—There shall be at least one pipe clip to each 6-ft. length of vent pipe.

For cast iron pipe without lugs, or wrought iron pipe, approved coated wrought iron clips, and for galvanized sheet iron pipe one and one-half (1½) in. x 14-gauge galvanized band iron clips, or approved pipe hooks shall be provided.

Wherever it is necessary to fix pipes clear of the wall, approved extension clips shall be used. Clips, in the case of cast iron pipes, must be placed tight up against the head or underside of the collar.

Section 85.—Attachment to Walls.—Unless otherwise directed by the proper officer, where a galvanized sheet iron pipe with or without offset is carried up above the brick wall of a building or out-building it shall be secured by a galvanized wrought iron clip leaded into the wall near the top wherever possible and bolted against the vent pipe, or by other approved means.

All band iron clips of vent pipes to brick walls shall be fastened with nuts and bolts leaded in, or by means of T-headed bolts, passed through the brick joints and turned at right angles to the joints, or by other approved means.

Section 86.—Supporting Vents.—Wherever a vent pipe with offset extends more than ten (10) feet above such offset, it shall be stayed, as directed by the proper officer, with ½-in. galvanized wrought iron piping.

An unsupported length of not more than fifteen (15) feet above the highest clip of straight vent pipe, without offset, will be permitted.

Section 87.—Vents Adjoining High Buildings.—In any case in which a building is erected next to an existing building of less elevation and any windows of the new building are located within thirty (30) feet of any existing vent stack on the lower building, the owner of such new building shall defray the cost of such alterations to the vents of the previously existing building as are necessary to conform with section 76.

The owner of the lower or existing building shall make such alterations upon the receipt of money or security therefor sufficient for the purpose from the owner of the new or higher building, or shall permit at the election of the owner of the new or higher building the making of such alteration by the owner of such new or higher building.

PART 4.—PIPE CAPACITIES.

DIVISION 23.—CAPACITIES OF SOIL, COMBINED WASTE, DRAIN, AND VENT PIPES.

Section 88.—Fixture Units.—For the purpose of determining the size of any soil, waste, combined waste, drain, or vent pipe, the following equivalent fixture units shall be adopted, unless otherwise directed by the Authority, and the least nominal outlet diameter shown hereunder for any fixture shall be the minimum outlet diameter for such fixture, except as provided in section 132 for water closet pans.

Fixture.	Nominal Outlet Diameter.	Fixture Units.
	Inches.	
One lavatory basin	1½	1
One lavatory basin	1½	1½
For each lavatory basin over 20 served by such pipe	..	½ for each basin
One kitchen sink (up to 6 inches depth to overflow)	2	3
One bath (with or without overhead shower)	1½	4
One wash trough set with common trap	2	6
One urinal or group of urinals draining to a common trap	1½	3
One slop sink	2	4
One shower compartment	2½	3
One water closet	2	6
Group of fixtures contained in one apartment—		
Bath and lavatory basin .. .. .	..	6
Bath, lavatory basin, and shower .. .. .	..	6
Bath, lavatory basin, shower, and water closet .. .. .	..	6

For fixtures other than those shown, the equivalent fixture units to be adopted shall be determined by the proper officer.

Section 89.—Sizes of Soil, Waste, Combined Waste, and Drain Pipes.—The sizes of soil, waste, and combined waste pipes computed in accordance with the methods set out in the appendix to this chapter shall be

not less than the sizes determined on the basis of the total number of fixture units drained or likely to be drained in accordance with the following table:—

PERMISSIBLE MAXIMUM NUMBER OF FIXTURE UNITS.

Grade not less than—

Diameter of Pipe.	1 in 60.	1 in 40 (a).	1 in 30.	1 in 25.	1 in 20.	1 in 15.	1 in 12 (b).	1 in 4 (c).	Vertical Stacks.
Inches—									
1½	9	6	6	8	9
2	10	10	12	17	24
2½	14	16	18	20	28	36
3	20	22	24	27	30	40	50
4	..	100	108	115	125	135	150	210	260
6	..	420	490	560	600	650	820	1,150	1,400

(a) Corresponds to 88½° fittings. (b) Corresponds to 85° fittings. (c) Corresponds to 75° fittings.

Provided that—

- Soil, waste, and combined waste pipes shall not be diminished in the direction of flow.
- The diameter of trap, soil, waste, or combined waste pipe receiving the discharge from any fixture shall in no case be less than the nominal outlet diameter of such fixture with a minimum of one and one-half (1½) inch, nor shall any soil pipe be less than three (3) inches in diameter.
- Not more than two closet pans shall discharge into any 3-in. graded soil or combined waste pipe.
- For the purpose of this section, offsets in vertical stacks may be treated as though vertical, provided the length of offset does not exceed five (5) feet measured horizontally.
- Where forty-five (45) degrees fittings are used throughout for connexions to any stack, the "permissible maximum number of fixture units for vertical stacks" in the above table may be increased by 50 per centum (50%).
- Not more than one-half (½) of the total permissible number of fixture units for a vertical stack, in accordance with the above table, shall be connected to such stack in any 8-ft. length thereof.
- Soil, waste, and combined waste pipes shall be as direct and free from bends as practicable; where bends are unavoidable, approved provision shall, if necessary, be made to safeguard fixtures connected immediately above or below such bends.

Section 90.—Sizes of Vents.

(a) **Length of Vent.**—For the purposes of this clause, the length of any vent shall be defined as follows:—

- Length of main vent shall be the height of the building, in storeys, above the floor on which are situated the lowest fixtures served by such vent.
- Length of branch vent shall be the height of the building, in storeys, above the floor on which are situated the lowest fixtures served by such vent, plus an additional storey for each 12 feet, or part of twelve (12) feet, in the length of the branch vent, measured horizontally from the main vent to the fixture in question.

(b) **Main and Branch Vents.**—The sizes of main and branch vents, computed in accordance with the method set out in the appendix to this part, shall be not less than the sizes determined from—

- the size of soil, waste, or combined waste pipe or stack to be vented;
- the total number of fixture units served by the main vent, or by that portion of the branch vent under consideration; and

(3) the length of the vent; in accordance with the following table:—

MINIMUM PERMISSIBLE SIZES OF MAIN OR BRANCH VENTS (INCHES).

Diameter of Soil, Waste, or Combined Waste Pipe.	Total Number of Fixture Units Served.	Total Length of Vent in Storeys—									
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10 and Over.
Inches—											
1½	Up to 8 ..	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½
	9-14 ..	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½
2	Up to 12 ..	1½	1½	1½	1½	2	2	2	2	2	2
	13-36 ..	1½	1½	1½	2	2	2	2	2	2	2
2½	Up to 12 ..	1½	1½	1½	1½	2	2	2	2½	2½	2½
	13-36 ..	1½	1½	1½	2	2	2	2	2½	2½	2½
	37-54 ..	1½	1½	1½	2	2	2	2½	2½	2½	2½
3	Up to 12 ..	1½	1½	2	2	2	2	2	2	2	2½
	13-24 ..	2	2	2	2½	2½	2½	2½	2½	2½	2½
	25-42 ..	2	2	2½	2½	2½	2½	2½	3	3	3
	43-75 ..	2	2½	2½	2½	2½	3	3	3	3	3
4	Up to 12 ..	2	2	2	2½	2½	2½	2½	2½	2½	2½
	13-24 ..	2	2½	2½	2½	2½	2½	2½	2½	3	3
	25-36 ..	2	2½	2½	2½	2½	2½	2½	3	3	3
	37-48 ..	2½	2½	2½	2½	2½	2½	3	3	3	3
	49-72 ..	2½	2½	2½	2½	3	3	3	3	3	3
	73-120 ..	2½	2½	2½	3	3	3	3	3	3	3
	121-180 ..	2½	2½	3	3	3	3	3	3	3	3
	181-300 ..	2½	3	3	3	3	3	3	4	4	4
	301-390 ..	3	3	3	3	3	4	4	4	4	4
6	Up to 600	4	4	4	4	5	5	5	5	5	5
	601-1,300	4	5	5	5	5	5	5	5	6	6
	1,301-2,100	4	5	5	5	5	6	6	6	6	6

Provided that—

- No vent shall be less than one and one-quarter (1¼) inch in diameter, and in no case shall a main or branch vent have a diameter less than one-half (½) of that of the soil or waste pipe which it serves.
- For 2-in. and 2½-in. waste pipes the main or branch vent shall have a diameter of not less than one and one-half (1½) inch.
- No branch vent need be larger in diameter than the soil or waste pipe which it serves.

(c) **Individual Anti-siphonage Vents.**—The sizes of individual anti-siphonage vents shall be not less than the sizes determined from the diameter of the fixture trap served, in accordance with the following table:—

Diameter of Fixture Trap.	Minimum Permissible Size of Anti-Siphonage Vent.	Diameter of Fixture Trap.	Minimum Permissible Size of Anti-Siphonage Vent.
Inches.	Inches.	Inches.	Inches.
1½	1½	3	2
2	1½	4	2
2½	2	..	..

Section 91.—Waste Pipes.—Except as provided in section 93, separate waste pipes shall be provided for each of the following classes of polluted water, viz.:—

- (a) Water from baths, sinks, lavatory basins, wash troughs, and grease traps where such are ordered or required, and other waters containing a small proportion of soap and/or dirt.
- (b) Water from kitchen and scullery sinks or other fixtures, to grease traps where such are ordered or required.

Section 92.—Soil Pipes.—Except as provided in section 93, soil pipes shall be provided for soil water from closets and other waters containing faecal matter, and for urinal waters from slop sinks and urinals, and, where directed, for discharges from operating theatres and mortuaries.

Section 93.—Combined Wastes.—The proper officer may approve of the adoption of the combined pipe system for plumbing installations, subject to the following conditions and such other conditions as he may think necessary in any particular case, viz.:—

- (a) Application shall be made in writing by the owner or his authorized agent, who shall submit with such application—
 - (1) plans showing clearly all floors and basements (if any) upon which fixtures are or are proposed to be installed, the nature and position of all fixtures, the size and arrangement of all soil, waste, combined waste, and vent pipes, and the position, size, and approximate depth of all drains, and the intended use of each room in which a fixture is or is proposed to be installed, and of each room from which a water closet or urinal is entered directly;
 - (2) sectional line diagrams showing clearly each soil, waste, combined waste, or vent pipe or stack, together with their sizes and the positions of all fixtures connected thereto, and, where required, the gradients of the soil, waste, or combined waste pipes;
 - (3) such other information as the proper officer may require.
- (b) The size and arrangement of all soil, waste, combined waste, drain, and vent pipes shall be approved by the proper officer.

Section 94.—Connexions to Drains.—Except as provided in section 93, all waste pipes shall, unless otherwise permitted, discharge under the grating of a yard gully or into a disconnector trap.

All soil and combined waste pipes, including those for urinals and slop sinks, shall be connected direct to the drain.

APPENDIX.

METHOD OF COMPUTING THE SIZES OF SOIL, WASTE, COMBINED WASTE, AND VENT PIPES IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 23.

Fixtures.

1. In accordance with section 88 classify the various fixtures and determine the maximum number of fixture units to be provided for in each portion of the system under consideration. Cleaners' sinks and floor wastes, which are not regularly in use during the period of maximum use of other fixtures, need not be included in determining the number of fixture units to be provided for.

Sizes of Graded Soil and Waste Pipes.

2. (a) By reference to section 89, determine from the maximum number of fixture units served at the point under consideration the required sizes and grades of the soil, waste, and combined waste pipes in each portion of the system.

(b) Compare the sizes so obtained with the minimum permissible sizes for the particular case and adopt the larger.

Sizes of Vertical Soil and Waste Stacks.

3. (a) By reference to section 89, determine from the maximum number of fixture units served at the point under consideration the required sizes of vertical soil, waste, and combined waste stacks.

(b) Ascertain whether the number of fixture units connected to the stack within any 8-ft. length is within the permissible limits of the provision (f) of section 89, if not, adopt such larger size stack as will comply with this requirement.

(c) Compare sizes so obtained with the minimum permissible sizes for the particular case and adopt the larger sizes, subject to provision (a) of section 89.

Size of Main Vents.

4. (a) Determine the vertical length of the main vent in storeys from its connexion at its lower end with a soil, waste, or combined waste pipe, or drain to the ceiling level of the top floor.

(b) From the table of permissible sizes in section 90, determine for the maximum number of fixture units served by the vent, the required size for a vent of such a length.

(c) Compare the sizes so determined with minimum permissible sizes and adopt the larger.

Sizes of Branch Vents.

5. (a) Determine the approximate vertical length in storeys of the main vent from the point of connexion of the branch vent under consideration to the ceiling level of the top floor.

(b) Determine the horizontal length of the branch vent from its connexion with the main vent to the furthest end of the portion under consideration.

(c) Allowing one storey for each 12 feet, or part of 12 feet, in horizontal length of branch vent, as determined by rule 5 (b) above, add this length in storeys to the length in storeys determined by rule 5 (a) above.

(d) Determine the number of fixture units served by the portion of branch vent under consideration.

(e) From the table of permissible sizes in section 90, determine the minimum size of vent required for the above number of fixture units and for the total length of vent in storeys as determined by rule 5 (c) above.

(f) Compare the sizes so determined with the minimum permissible sizes and adopt the larger, subject to the provision that no vent need be larger than the soil, waste, or combined waste pipe which it serves.

PART 5.—PLUMBING.

DIVISION 24.—GENERAL.

Section 95.—Flashing.—Unless otherwise directed by the Authority, all troughs, sinks, baths, and other fixtures which are placed less than six (6) inches from any wall, except those provided with wall skirtings as part of the fixture, shall be flashed with 4 lb. lead, 24-gauge copper, bronze, brass, nickel-silver, or monel metal, or other approved material. Galvanized sheet iron may be used for fixtures other than sinks.

All such flashings shall be turned up the walls at least four (4) inches, or be tucked one (1) inch into a joint and cemented water-tight, except where the walls are tiled, when the flashing shall be carried up at least one-quarter (¼) inch behind the tiles.

Baths and other fixtures, having turned-up flanges for use against tiled walls in lieu of sheet metal flashing, shall be properly supported to prevent settlement, and the flange shall lap at least one-quarter (¼) inch behind the tiles, which shall be brought hard down on to the surface of the fixture.

All flashings shall be properly secured and made water-tight, and shall be bedded for a width of not less than one (1) inch along the edge nearer the fixture, in red or white lead.

Section 96.—Pipes Through Roof.—In all cases where a vent, waste, combined waste, or soil pipe passes through any roof, a suitable lead collar or flashing shall be soldered or otherwise fixed to the pipe and also the roof in such manner as shall make the roof perfectly water-tight.

DIVISION 25.—SOIL, WASTE, AND COMBINED WASTE PIPES.

Section 97.—General.—All lines of soil, waste and combined waste pipes shall be as direct as possible.

Section 98.—Materials.—No material shall be used for soil or combined waste pipes other than cast iron, lead, or brass, or other approved materials, and for waste pipes other than wrought iron, cast iron, lead, brass, copper, or other approved materials.

Section 99.—Lead Pipes.—The minimum permissible weight of lead for soil or combined waste pipes shall be 7 lb. per square foot, and for waste pipes 6 lb. per square foot.

Section 100.—Wrought Iron Pipes.—All wrought iron pipes and their fittings shall be of approved standard weight and quality and galvanized or lined to the approval of the Authority.

Section 101.—Cast Iron Pipes.—All cast iron pipes shall be sound, free from holes and cracks, and coated with approved bituminous composition or lined with glass enamel, or other materials to the approval of the Authority.

Cast iron pipes and their fittings, where laid in the ground, shall comply with the standard approved by the Authority for cast iron water pipes and their fittings of similar diameters.

Cast iron pipes for use in other situations shall have a minimum thickness of 3/16 inch, measured without the enamel or other lining, and their fittings shall correspond with them in weight and quality. All junctions shall be curved; right-angled junctions shall not be made.

Section 102.—Copper and Brass Pipes.—Copper or brass waste pipes shall be seamless solid drawn tube, and shall be of a diameter and thickness not less than those given in the following table:—

Nominal Internal Diameter.	Minimum Permissible Actual Internal Diameter.	Minimum Permissible Wall Thickness (S.W.G.).		British Standard Pipe Thread for Screwed Connections.
		Screwed Connections.	Brazed or Compression Joints.	
Inches.	Inches.			Inches.
1½	1½	12	16	1½
1½	1½	12	16	1½
2	1¾	11	16	2
2½	2½	11	14	2½
3	2¾	10	14	3
4	3½	8	12	4

Section 103.—Use of Lead Pipes.—Lead pipes shall not be used where liable to damage.

Section 104.—Supporting Lead Pipes.—Lead pipes shall be supported by cast lead tacks of approved dimensions, wiped on to the pipe or by other approved fastenings, and such fastenings shall be arranged as nearly as possible thus:—

	Centres.
4-in. vertical lead pipes ..	2 ft. 6 in.
4-in. inclined lead pipes ..	2 ft. 0 in.
Less than 4-in. vertical pipe ..	3 ft. 0 in.
Less than 4-in. inclined pipe ..	2 ft. 3 in.

Two (2) pairs of tacks, fixed opposite, are sufficient for fixing lead flush pipes from cisterns with lugs.

Section 105.—Length of Unvented Waste Pipes.—Except as provided in section 180, waste pipes shall not be ventilated unless they exceed seven (7) feet in inclined lengths and/or eighteen (18) feet in vertical length, provided that there is only one fixture attached to the waste pipe, and provided that the water seal of the trap is not reduced by siphonage or other cause.

Where there is more than one fixture or the water seal is reduced, a vent pipe shall be supplied to the fixture trap or traps.

Section 106.—Junctions.—Where a soil, waste, or combined waste stack is branched into a graded soil, waste, combined waste, or drain pipe, the branch fitting shall have an angle of not less than forty-five (45) degrees to the graded pipe, and the length of the branch of the fittings shall be such that the vertical projection of the attached stack will be wholly outside of the area of the junction with the graded pipe. Junctions shall not be built into walls except with the approval of the Authority or its proper officer.

Section 107.—Sealing of Pipes.—Wherever a fixture is abolished, the soil, waste, combined waste, vent, and water supply pipes to such fixture shall be removed, or, if allowed by the Authority to remain, the ends of the pipes shall be sealed with water-tight imperishable materials.

Wrought iron pipe may be sealed with a screwed plug; cast iron pipe may have a cast iron plug caulked in with lead; lead pipe may have the end securely closed with a wiped joint; stoneware or concrete pipe may have a stoneware or concrete disc cemented in.

Section 108.—Sheet Metal Bends and Offsets.—All sheet metal bends and offsets, for flush and vent pipes, shall be bent or pressed. Mitred elbows will not be permitted.

Section 109.—Painting.—All external plumbing work and all cast iron cisterns and brackets, woodwork in connexion with plumbing installations, sheet iron flush pipes, and sheet iron storage tanks and trays shall be painted, to the approval of the proper officer. In no case shall painting of any portion of the plumbing work be carried out unless and until such work has been inspected and approved.

Section 110.—Minimum Permissible Gradients.—The following are the minimum gradients to be adopted for soil and waste pipes.

Diameter of Pipe.	Minimum Gradient.
1½ inch ..	1 in 18
1½ inch ..	1 in 20
2 inches ..	1 in 24
2½ inches ..	1 in 30
3 inches ..	1 in 36
4 inches ..	1 in 40
5 inches ..	1 in 50
6 inches ..	1 in 60

Section 111.—Concealment of Pipes.—All soil, waste, and main vent pipes and traps shall, except where passing through walls, partitions, and floors be reasonably accessible at all times for inspection and convenience of repairing—

(a) In hospitals and similar institutions all soil, waste, and main vent pipes, where practicable, shall be fixed on the outside of external walls or in pipe ducts having a minimum width of two feet and minimum area of 9 square feet (measured clear of all pipes or other obstructions), and shall be so arranged as to facilitate inspection and maintenance at all times. Such pipe ducts shall be provided with access doors, so placed as to permit ready inspection of every straight line of waste or soil pipe or main vent pipe;

(b) In buildings other than hospitals and similar institutions, if soil, waste, or main vent pipes are concealed within pipe ducts or recesses in walls, such pipe duct or recess shall—

(1) be provided with approved means of access, and have a width of not less than 2 feet and a minimum area of 9 square feet (measured clear of all pipes or other obstructions); or

(2) have at least one of its sides constructed of woodwork, brickwork in lime mortar, terracotta, or gypsum blocks, plaster on expanded metal lathing, or other approved material, so constructed and fixed as to be capable of being removed independently of, and without damage to, any other part of the structure, and provided with inspection openings, so placed as to allow ready inspection and maintenance of every straight line of soil or waste or main vent pipe;

(c) Branch and anti-siphonage vent pipes may be concealed in hollow walls, or may be built in lime mortar in wall-chases, provided the pipes and fittings are made of cast-iron or wrought-iron or steel pipe, or of brass or copper of thickness not less than 12-gauge where screwed fittings are used, and not less than 16-gauge where compression fittings are used, with fittings to correspond, or when joints are brazed. In no case, except by special permission, shall junctions be built into walls;

(d) All inspection or access openings to concealed pipes shall be finished throughout with smooth surfaces, and shall be of such size and shape as to permit the entrance of cleaning tools, as required, to the pipe;

For the purpose of this section, a straight line of soil, waste, or main vent pipe shall be taken to include any offset or deviation from the straight line of not more than 45 degrees and not more than 3 feet in length.

DIVISION 26.—JOINTS.

Section 112.—Lead Pipe.—All joints in lead pipe shall be plumbers' wiped joints.

Section 113.—Wrought Iron Pipes.—The screwed ends and sockets of each particular size of wrought iron or wrought steel pipe shall be so formed and the threads so cut that the ends of the pipe will butt against each other when screwed home in the sockets; bends, junctions, and similar fittings shall be similarly formed and screwed

so that when the pipe ends are screwed home the bore will be continuously uniform and without breaks or pockets.

The burr shall be neatly filed off on the inner edge of all pipe ends. All screwed joints shall be made with approved jointing material.

Section 114.—Wrought Iron Pipe to Lead Pipe.—All joints between wrought iron and lead pipes shall be made by means of brass unions screwed to the iron pipe and wiped to the lead pipe.

Section 115.—Brass or Copper Pipes.—Joints of brass or copper pipes shall be made by means of brazing to the satisfaction of the proper officer or in accordance with the S.A.A. Specification B.36, "compression joints and copper alloy screwed fittings for standard copper tubes".

Section 116.—Lead Pipe to Cast Iron Pipe.—The connexion of lead pipes or traps to cast iron pipes shall be made by means of brass ferrules; the brass ferrule shall be lined with and connected to the lead pipe or trap by means of a wiped joint and connected to the cast iron by inserting the ferrule in socket thereof, and making the joint in the same way as in cast iron pipe.

Section 117.—Sheet Iron Pipe to Cast Iron Pipe.—All connexions of galvanized sheet iron to cast iron pipes shall be made with molten lead, lightly but tightly caulked into the cast iron sockets or with other approved material, or with a brass sleeve soldered to the sheet iron pipe and caulked with lead.

Section 118.—Sheet Iron Pipe to Wrought Iron or Steel Pipe.—Galvanized sheet iron pipes shall be connected to wrought iron or steel pipes by means of brass unions or sleeves soldered to the sheet iron and screwed to the wrought iron.

Section 119.—Sheet Iron Pipe to Lead Pipe.—Connexions of sheet iron pipes to lead pipes shall be made by means of brass sleeves wiped to the lead pipe and soldered to the sheet iron pipe.

Section 120.—Lead Pipe to Concrete or Stoneware Pipe.—Connexions of lead pipe to stoneware or concrete pipe shall be made by means of a brass ferrule connected to the lead pipe by means of a wiped joint and connected to the stoneware or concrete pipe by inserting it in the socket thereof and making a cement mortar joint.

Section 121.—Concrete or Stoneware Traps to Lead Pipe.—The connexion of a stoneware or concrete trap to a lead pipe shall be by means of a cast lead or brass socket, and the joint made with bitumen or other approved material; the lead pipe shall be connected to the tail end of the brass or lead socket by means of a plumbers' wiped joint.

Section 122.—Connexion of Closet Pan Traps to Soil Pipe or Drain.—Connexion of a closet pan to a soil or drain pipe shall be made by means of a bituminous jointing material, consisting of a mixture of approved bitumen and finely graded inert mineral filler in equal proportions, filled in solidly into socket of soil or drain pipe and neatly splayed off, or by other approved method. In the case of lead soil pipes, a cast lead or brass socket shall be used, connected to the lead pipe by means of a wiped joint.

Section 123.—Cistern Flush Pipe to Closet Pan.—The flush pipe from cistern shall be connected to the water closet pan by a lead cap piece of not less than 4 lb. lead, packed with red lead or other approved material, or the connexion may be made by other approved method. The cap piece shall be jointed to galvanized sheet iron, copper, brass, or drawn steel pipe by means of a soldered joint, and to lead flush pipe by a wiped or soldered joint.

The connexion of the flush pipe to cistern shall be by means of a brass union, wiped to lead pipe or soldered to sheet iron pipe, or by other approved method. Copper or brass pipe shall be connected to cistern by means of a brass ring, with nut brazed to pipe or by other approved means.

Section 124.—Vent Pipe to Closet Pan.—Vent pipes shall be connected to the vent horn of the water closet trap by a lead cap piece with red-lead packing, or by other approved methods.

The cap piece shall be jointed to copper or brass pipe by means of a soldered joint, and to lead pipe by a soldered or wiped joint.

Section 125.—Outlet Fittings to Fixtures.—Connexions between outlet fittings and such fixtures as baths, sinks, basins, &c., when the latter are constructed of cast iron, sheet iron, ceramic ware, or concrete shall be made with

lock nuts. The outlet fitting shall in all cases be connected to the waste pipe by means of a union. When these fixtures are made of sheet metal lighter than 20 gauge, soldered connexions may be used in lieu of lock nuts.

Section 126.—Waste Pipes to Troughs.—Connexions of waste pipes to wash troughs shall be made as under:—

- (a) Cement troughs, unless otherwise approved, shall have approved cast-in outlets;
- (b) Sheet metal troughs shall be connected to the waste pipes in compliance with section 125;
- (c) For wooden troughs, lead, copper, or brass waste pipes shall be connected in compliance with section 125, or shall have flanges connected to the waste pipe in accordance with the provisions of this By-law, and fastened to the underside of the trough with copper tacks. The waste pipe shall then be turned over inside the trough and the plug casting bedded over it with red-lead putty and screwed to trough with brass wood-screws.

Where wrought iron or other screwed pipes are used, the plug casting must be connected to the trough by means of a locknut in lieu of flange.

DIVISION 27.—FIXTURE TRAPS.

Section 127.—Fixtures to be Trapped.—Every fixture shall be effectively trapped, except as provided in section 128, or unless otherwise specially permitted by the Authority. Separate traps shall be provided for each fixture, except lavatory basins, sinks, or troughs in the same apartment which may be connected in pairs.

Section 128.—Omission of Traps.—Baths, lavatory basins, wash troughs, and sinks may remain untrapped where fixed in the open air or in a detached outbuilding not used as a living room, work room, or room for the preparation, cooking, or storage of food and not connected directly by openings with the main building or residence, provided that the length of the waste pipe, measured in the case of wash troughs from centre of furthest inlet to end of waste-pipe outlet, does not exceed six (6) feet.

Section 129.—Position of Traps.—Traps shall be placed as near the fixtures as possible, and in no case shall a trap be more than two (2) feet from its fixture, except as provided in section 77, unless otherwise specially permitted by the Authority.

Section 130.—Materials.—Traps for all fixtures other than water closets, slop sinks, and urinals shall be of copper, brass, or drawn lead.

Section 131.—Depth of Water Seal.—Every trap shall have a water seal of not less than two (2) inches.

Section 132.—Closet Pan Traps.—Outlets from closet pan traps shall be of not less than 3½-in. nor more than 4-in. diameter, except in the case of siphonic pans, which shall be as directed by the Authority.

Section 133.—Sealed Disconnector Traps.—Where approved by the Authority, sealed disconnector traps may be fixed inside or outside the building, but in such cases breather pipes or fresh-air inlets of same diameter as disconnector trap shall be taken to such height as directed, and where trap is inside shall be led to the outside of the building. The material for such breather pipes shall be the same as for vent pipes, except that sheet iron will not be allowed. Inspection openings to such traps shall be sealed with screwed plugs, or as otherwise approved by the Authority.

Section 134.—Form of Trap.—The P. form of trap shall be used in preference to the S. form where, in the opinion of the proper officer, it is equally suitable for the situation.

Section 135.—Lead Traps.—All lead traps must be of the weights specified in section 99 for lead pipes of the same class.

DIVISION 28.—GRATINGS.

Section 136.—Gratings.—Non-corrodible metal outlet gratings of approved design and material in accordance with the S.A.A. Specification No. B.38, "Metal Alloy Sanitary Fittings", shall be provided for all fixtures other than a water closet. If for the fixture in question there is no S.A.A. Specification, the grating shall be to the approval of the Authority.

DIVISION 29.—CLEANING EYES AND INSPECTION OPENINGS. DIVISION 31.—WATER CLOSETS, URINALS, AND FLUSHING APPARATUS.

Section 137.—Provision for Inspection and Cleaning.—Inspection and cleaning eyes shall be provided in such positions on all soil, combined waste, and waste pipes as will provide access for proper inspection and cleaning of the entire length of pipe.

Traps for fixtures other than urinals, water closets, and slop sinks shall, in each case, be provided with an approved screwed brass plug for cleaning purposes.

Section 138.—Inspection Openings on Soil and Combined Waste Pipes.—In every case where a vertical stack of soil or combined waste pipe provides for a closet or closets four (4) feet or more above ground level, measured from floor level of any such water closet to ground level at foot of stack, an inspection opening, eight (8) inches by four (4) inches, having a cover fixed to a flange with non-corrodible bolts or studs, shall be provided near foot of stack in such position as directed by the proper officer.

Section 139.—Washers for Inspection Openings.—Inspection openings to soil, waste, and combined waste pipes shall be provided with approved washers.

DIVISION 30.—GREASE, PETROL, AND OIL TRAPS.

Section 140.—Provision of Grease, Petrol, and Oil Traps.—Every fixture or area from which grease, oil or greasy or oily matter or petrol, benzine, or other inflammable or explosive substance is likely to be discharged or conveyed into waste, combined waste, or soil pipes or house drains, and every sink in all such places as food-packing houses, butchers' shops, lard-rendering establishments, hotels, restaurants, and boarding houses, and such fixtures, areas, apparatus or appliances, as the Authority may direct, shall first discharge into an approved apparatus for retaining the objectionable matter. Such apparatus shall be of such dimensions, design, and construction and in such positions as the Authority or its proper officer may in each case approve.

Section 141.—Construction of Grease Traps.—Grease traps shall be fixed outside buildings or out-buildings wherever practicable. Wherever a grease trap is used inside a building or out-building it shall, where not readily accessible for removal of grease, be so constructed and fitted as to be easily portable.

Non-portable grease traps shall be constructed of glazed stoneware, concrete, brick in cement, or other approved material.

Portable grease traps shall be constructed of copper or other approved material, provided with a close-fitting cover, and, if directed, fixed upon a tray. The outlet from any grease trap shall be connected to a disconnector trap.

Section 142.—Grease Trap Ventilation.—Unless otherwise approved, every internal grease trap and all external grease traps which are within thirty (30) feet of any door, window, or other opening into a building, shall, unless fitted with an approved air-tight cover, have independent provision made for inlet and outlet ventilation.

Every such vent shall be carried not less than six (6) feet above any window, door, or other opening to any building within a distance of thirty (30) feet thereof, and in any case at least two (2) feet above the eaves or coping, or to such additional height as may be necessary to prevent effectually the escape of foul air into any building within the vicinity.

In all cases there shall be a difference in height of at least 6 feet between the tops of the inlet and outlet vents.

The size of such vents shall be in compliance with the requirements for main vents in section 90, the diameter of waste pipe being taken as that of the outlet from the grease trap, and the number of fixture units equivalent to number represented by the sinks served by the grease trap.

Section 143.—Size of Grease Trap.—The dimensions of grease trap to be provided shall be such as to ensure the retention of all grease entering such trap.

Section 144.—Outlet Pipes.—The outlet pipe from any grease trap must be at least one size larger than that size of pipe which has a cross-sectional area equivalent to the total area of incoming waste pipes. In no case, except by special permission, shall the outlet pipe be less than 3-in. diameter.

Section 145.—Maintenance.—Every grease trap shall be maintained by the occupier at his own expense, and shall be cleaned at such intervals as will ensure that such trap operates in an efficient and hygienic manner.

Section 146.—Provision of Water Closets.—The owner of any premises in the area, when and as required by the Authority, shall provide on such premises water closets to be so placed, either within or outside the building, as to ensure the due observance of decency, and to be easily accessible to the occupiers of such building, in accordance with the following scale:—

(1) *Water Closet Accommodation for Private Premises.*

- (a) For every dwelling or tenement in single occupation thereon, at least one water closet.
- (b) For each flat in a tenement, not in single occupation, at least one water closet for each sex on each floor for every twelve persons or fractional part of twelve persons.

Water Closet Accommodation for Churches, &c.

- (c) For every church, chapel, or other public building, at least one water closet for each sex, or as Act by regulations under Health Acts.

Water Closet Accommodation for Warehouses, &c.

- (d) For every building used for a warehouse, factory, shop, office, or other business, separate water closets for each sex, at the rate of one water closet for every fifteen persons, or fractional part of fifteen persons, of each sex ordinarily present in or about the building during part or the whole of any day.

Water Closet Accommodation for Hotels, &c.

- (e) For every hotel, boarding-school, boarding-house, lodging-house, or other place thereon where numbers of persons may ordinarily lodge, reside, frequent, or congregate, separate water closets for each sex, at the rate of one water closet for every eight persons, or fractional part of eight persons, of each sex ordinarily lodging, residing, or frequenting the premises or congregating thereon, but for licensed victuallers' premises the water closet provision shall be increased to one for every ten persons or fractional part of ten persons of each sex, or as required by licensing court. Water closets for the use of females shall be so situated as to secure due privacy, and so it will not be necessary in order to reach them to pass through any room or place habitually frequented by males. Water closets for the different sexes shall not adjoin each other, unless separated by a wall of brick, stone, or concrete of at least 9 inches in thickness or reinforced concrete 6 inches in thickness, provided that such wall may be formed by a brick or stone or concrete wall of one water closet or common to both water closets. The door of every external water closet shall be properly screened by a fixed screen of metal or wood of at least 6 feet in height and reaching to the ground, care being also taken to screen the same from overlooking windows. Any water closet or water closets intended for the use of females shall have a separate entrance behind such screen, and such entrance shall not be within 12 feet of the entrance of any water closet intended for the use of males.

Water closet accommodation must be provided on each floor containing bedrooms of every hotel or licensed victualler's premises, or as may be directed by the Authority or as determined by Regulations under Health Acts.

Water Closet Accommodation for Schools.

- (f) For every school carried on in a building used solely for school purposes, separate water closets for teachers and adults, and for children, respectively, according to the regulations made under the Health Acts.
- (g) For every building used in common for residential and for school purposes, or for a warehouse, factory, shop, office or other business, separate water closets for the portion used for residential purposes and for the portion used for school purposes, or

for the other business aforesaid, at the rate prescribed in paragraphs (a), (b), (c), (d), (e), or (f) of this section, as the case may be:

Provided that the residence of a caretaker without wife or family on the premises shall not constitute the use of a building for residential purposes within the meaning of this paragraph.

Places of Public Entertainment.

- (h) For any place or places of public entertainment, water closets of such number as regulation made under the Health Act may require, and the same shall be at all proper times reasonably accessible for use. The provisions for size, floors, lighting, ventilation, privacy, and screening shall be similar to those prescribed in the relevant sections herein.

(2) *Provision of Urinals.*—The owner of any premises in the area, when and as required by the Authority, shall provide on such premises proper and sufficient urinals, in addition to the water closets provided for in sub-section (1) of this section, to be so placed within or outside the building as to ensure the due observance of decency, and to be easily accessible to the users of such urinals, in accordance with the following provisions:—

- (a) *Urinal Accommodation for Churches, &c.*—For every church, chapel, or other public building where numbers of persons may congregate, urinals of such number, as may be ordered by the Authority or determined by regulations under Health Act to be placed in approved positions, the plans and situations of such urinals to be approved of by the Authority.
- (b) *Urinal Accommodation for Warehouses, &c.*—For every building used for a warehouse, factory, shop, office or other business, urinals of such size and number of stalls as may be ordered by the Authority or other authority to be placed in approved positions; the plans of such urinals and the situation thereof to be approved of by the Authority, and, where required by any act or regulation, by the Director of Health of the Chief Inspector of Factories.
- (c) *Urinal Accommodation for Hotels, &c.*—For every hotel, boarding-school, boarding-house, lodging-house, or other place where numbers of persons may ordinarily lodge, reside, frequent, or congregate, urinals, of such size as may be ordered by the Authority or other authority, to be placed in approved positions; the plans of such urinals, where required to be approved of by the Director of Health, the Authority, or the Licensing Court.

In the absence of other directions, one urinal stall shall be provided for every ten males or fractional part of ten males ordinarily frequenting a licensed victualler's premises, with a minimum of four urinal stalls.

- (d) *Urinal Accommodation for Schools.*—For every school carried on in building used solely for school purposes, urinal accommodation as required by regulations under the Health Acts.
- (e) *Urinal Accommodation for Places of Public Entertainment.*—For any place or places of public entertainment, urinal stalls of such number as the Director of Health may require, the same to be at all proper times reasonably accessible for use.

(3) *Lighting Urinals.*—All urinals to which the public have access after dark must, during such time of access, be kept properly lit to the satisfaction of the Authority.

Section 147.—Air-Locks for Water Closets and Urinal Compartments.—Each water-closet and/or urinal situated within a building shall, unless otherwise approved, comply with the following conditions:—

- (1) Except as provided in sub-section (2) hereof, no water-closet or urinal compartment within a building shall be entered directly from any

room used for human habitation, or for the manufacture, preparation, or storage of food for human consumption, or used as a factory, workshop, or work place. Where otherwise such closet or urinal compartment would be directly entered from any such room, an airlock shall be provided, having a floor area of not less than 20 square feet, and lighted and ventilated in accordance with the provisions of section 149. In private premises, a hall, passage, lobby, or staircase may be considered as an air-lock, provided it has a floor area of not less than 20 square feet, and complies with the requirements of section 149.

- (2) The air-lock may be omitted where a water closet, within any building, is intended solely for the private use of not more than two persons, and opens off a room normally occupied by those persons only, provided that such room is not used for the manufacture, preparation, storage, or consumption of food, or as a factory, workshop, or work place.
- (3) No air-locks will be required where ventilation, in accordance with section 151, is provided to water closets or urinal compartments.

Section 148.—Lighting and Ventilation of Water Closets and Urinals.—Except as provided in section 150, every water closet or urinal compartment within a building shall comply with the following conditions:—

- (1) One of its sides shall be an external wall of such building, abutting on to a street or lane, or an open space within the premises, having a width of not less than 2 ft. 8 in., and an area not less than the following:—
- (a) For the first storey above floor level, an open space of 36 square feet;
- (b) For the second storey above floor level, an open space of 72 square feet.
- (c) For all other storeys above floor level, an open space of 100 square feet.
- (2) Each water closet or urinal compartment shall be provided with a window in such external wall, having a clear light area of not less than 2 square feet per closet pan, and capable of being opened.
- (3) Each water closet or urinal compartment shall be provided with direct ventilation to the open air from a point near ceiling level and a floor vent. Such ventilation shall be provided by a vent or vents, carried as direct to the open air as is practicable, and boxed throughout and having a minimum clear area at any point of not less than 27 square inches per closet pan.
- (4) Glazed louvers may be used in lieu of windows and ventilators, subject to their providing a clear light area of not less than 2 square feet per closet pan and a clear ventilating area of not less than 27 square inches per closet pan.
- (5) Approved artificial lighting shall be provided sufficient to light each water closet and/or urinal compartment, unless borrowed lighting to the approval of the Engineer is provided.

Section 149.—Lighting and Ventilation of Air-Locks.—

- (1) Each air-lock shall be—
- (a) Provided with a window to open, or glazed louvers on an external wall, having a clear area of not less than 2 square feet, or one-twentieth, of floor area of air-lock, whichever is the greater; or
- (b) Separately lighted by electricity and provided with a switch within the air-lock.
- (2) Except as provided in sub-section (3) of this section, every air-lock shall be provided with direct ventilation to the open air at a point near ceiling level and an approved floor vent. Such ventilation shall be provided by a vent, or vents, carried as direct to the open air as is practicable, and boxed throughout, and having a minimum clear area at any point of not less than 12 square inches or 1 square inch for every 4 square feet of floor area of air-lock.
- (3) In private residences, the requirements of sub-section (2) of this section may be omitted, provided—
- (a) That the floor area of the air-lock is not less than 20 square feet, and that the doors of water closets are fitted with approved self-closing devices; or
- (b) That other provisions are made to the approval of the Engineer.

Section 150.—Alternative Methods of Lighting and Ventilating Water Closets and Air-Locks.—(1) Subject to the approval of the Engineer first obtained, in writing, water closets or urinal compartments and air-locks in buildings other than hospitals and similar institutions, may be ventilated by one of the following methods, instead of by the method set out in section 148 and 149:—

- (a) (1) In buildings up to four storeys in height (measured from the floor of the lowest water closet or urinal compartment to be so ventilated), the water closet and urinal compartments and air-locks may abut on to a ventilating shaft; open to the sky and carried to such height as may be necessary to prevent the deflection of wind currents down the shaft by neighbouring structures.

No rooms, other than water closets and urinal compartments, air-locks, and bath-rooms, may open on to such shaft. The area of such ventilating shafts, and the maximum number of water closets or urinals to be served by any one such shaft, shall be as shown in the following table:—

Height of Ventilating Shaft in Storeys.	Minimum Area of Ventilating Shaft.	Maximum Permissible Number of Closet Pans or Urinals on any Vent Shaft.
1 or 2	16 square feet ..	4
3 or 4	1st and 2nd storeys : 16 square feet 3rd storey : 20 square feet Top storey : 24 square feet	10

No dimension of such ventilating shaft be less than 4 feet—

- (2) In buildings in which such ventilating shaft is three or four storeys in height, a ventilating duct, having a clear area of not less than 2 square feet, shall be carried from the bottom of the ventilating shaft to an external wall, and shall be boxed throughout.
- (3) Every water closet or urinal compartment or air-lock which abuts on to a ventilating shaft as aforementioned, shall have a window, capable of being opened to such shaft, with an effective glass area at least equal to one-fifth of the floor area of the compartment, with a minimum of 4 square feet, and shall be provided with ventilating openings to the ventilating shaft, having a total clear area at any point of not less than 50 square inches per closet pan or urinal stall of not less than 50 square inches per 100 square feet part thereof floor area for an air-lock.
- (4) Where water closets or urinals are situated in a basement or cellar, in addition to the above-mentioned requirements, there shall be provided a ventilating duct, carried through the roof, and fitted with an approved cowl, designed either to give a positive up-draught or down-draught in the duct, at the option of the owner. Such ventilating duct and cowl shall be capable of changing the air in each water closet or urinal compartment or air-lock served by it at least six times per hour, when subject to a wind velocity of 4 miles per hour, the inside and outside temperatures being equal.
- Ventilating ducts serving different compartments may be combined, but the minimum area of any ventilating duct shall be 25 square inches for each closet-pan or urinal served by the said duct.

- (b) The water closet or urinal compartment may be ventilated by a mechanical system of exhaust ventilation in compliance with the requirements of section 151.

- (2) Every water closet or urinal compartment permitted by the Authority to be ventilated in accordance with this section, shall be separately lighted by electricity and provided with a separate switch within the compartment.

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Section 151.—Mechanical Ventilation.—(1) Every system of mechanical ventilation shall be approved by the Engineer, and be capable of changing the air contents of the water closets served at least six times per hour.

- (2) In every case, the ventilation fan and the power unit operating same shall be in duplicate, unless the main air shaft shall, in the opinion of the Engineer, be designed to act as an efficient natural vent in the event of the mechanical equipment failing.

- (3) Upon completion, the owner or his representative shall carry out such tests of the ventilating system as the Authority may deem necessary.

- (4) Such mechanical system shall be operated continuously and maintained in good working order and condition, under the direction of a properly qualified person.

- (5) Any such mechanical system shall be open to inspection by the officers of the Authority at all reasonable times, and shall be subject to such tests as the Authority shall from time to time direct.

- (6) Subject to the requirements of section 111, air shafts may be used also as pipe shafts.

- (7) The failure for a period longer than 48 hours of any such ventilating system to operate efficiently, or to fulfil the requirements of this section, shall be an offence against this By-law.

Section 152.—Construction of Water Closets.—(a) Each closet apartment shall be not less than 2 ft. 8 in. wide and 5 feet long, inside measurements, and the walls shall be at least 7 feet high at the lowest part, but sufficient height must be allowed for the cistern, if installed, to have the clearances specified in section 159.

- (b) The floors of all internal water-closet apartments shall be constructed of concrete of not less than 4 inches thickness, or of other approved impervious material, and graded as directed, or they shall be provided with safes of lead or other approved material in accordance with the requirements of section 182, 183, and 184.

- (c) The minimum internal height of the walls of external water closets shall be not less than 8 feet at the back thereof and 7 feet at the front, measured from the floor to the top of the wall plate.

The floors of all external water closets must be constructed of concrete not less than four (4) inches thick, or approved tiles or other approved impervious paving laid on four (4) inches of concrete graded as directed. No part of the floor shall be less than three (3) inches above the adjoining ground.

- (d) In wooden water closets the bottom plates and plinths shall be of approved timber and the frame shall be securely fastened to the floor and made rigid, without attachment to fences.

- (e) Where repairs to wooden closet buildings are required the studs shall be cut back to sound timber and new plates fixed to the sound ends and bedded and secured to dwarf concrete or brick walls extending up to such a height as is necessary to give the required height from the floor to the level of the top wall plates.

- (f) For private residences internal water-closet doors shall be close fitting and give full privacy.

For internal water closet used by one sex alone the doors need only be of such size as to screen adequately the compartment.

- (g) External closet doors shall be saw-toothed on top and a space of 3 inches shall be left between bottom of door and floor, or other approved means of ventilation provided.

Section 153.—Closet Pans.—Every water closet shall be furnished with a pan of non-absorbent material, of such shape, capacity, and construction as is approved of by the Authority. Water closet pans and fittings thereto shall be entirely open to inspection and without any enclosure. Vent horns shall be provided on pans where directed, even if no anti-siphonage vent is required. If not used for a vent, such vent horn shall be sealed with a lead disc, bituminous filler, and a lead cap piece, or by other approved method.

Section 154.—Fixing Closet Pan.—On concrete floors, or floors of tiles set in concrete, the closet pan shall be securely bedded upon concrete or cement mortar and fixed with brass screws to approved lead dowels set in the floor, or by other approved means. Where the floor is of timber covered with an approved impervious material, the closet pan shall be secured to the timber by means of brass screws as directed or by other approved means.

Section 155.—Venting Closet Pans.—Unless otherwise directed or permitted by the Authority every closet pan on an upstairs floor shall discharge into a soil-ventilator

pipe, or combined waste ventilator pipe except that any closet pan on a floor which is not more than 8 feet in height from the ground surface level may be ventilated by an anti-siphonage vent only, in accordance with the requirements of sections 75 and 90, and discharge into a soil or combined waste ventilator pipe without extension as a ventilator pipe; provided that no fixtures at a lower level are connected to such soil pipe.

Any closet pan where ordered, and, also, unless otherwise directed, every internal closet pan which is more than 4 feet from a fully vented soil-pipe drain as measured along the axis of the pipe between the centre of soil pipe and centre of pan, shall be ventilated by an anti-siphonage vent in accordance with the requirements of section 90, sufficiently close to prevent siphonage, and in no case more than 18 inches from the trap. Notwithstanding the above, all "S" trap pans must be provided with anti-siphonage vents.

Section 156.—Grouped External Closets.—Where there are two or more external water closet pans grouped on the ground floor or in the yard of any premises, special provision to prevent siphonage may be ordered by the Engineer.

Section 157.—Closet Pan Seats.—All closet pan seats must be of the flap or hinged tin-up type. Except as approved by the proper officer, all seats shall not be less than 1 inch in thickness and constructed of approved material. When constructed of wood, four-piece seats shall be glued and either dowelled or bolted, and one-piece seats shall be reinforced with two wood or brass slips let in flush on the underside. To prevent fouling of pan, the closet seat openings must not be larger than 10½ in. x 9 in., and seats with holes so large as to cause fouling of the pan must not be used, provided that open-front seats of approved design may be used. Pans must measure at least 12 inches between the lower edge of the front and back faces of flushing rims. Water closet seats must be provided with approved buffers to prevent damage to the pan, and an approved buffer clip must be fixed to the flush pipe at a suitable height from the pan.

Section 158.—Flushing Apparatus.—Approved apparatus shall be provided for the effective application of water to the pan of the water closet and for the efficient flushing and cleansing of the pan and effective removal therefrom of any solid or liquid matter which may from time to time be deposited therein. Such apparatus shall have a flushing capacity of not less than 2½ gallons, and shall be so constructed, fitted, and placed as to supply water for use in the pan without any direct communication with any service water pipe upon the premises.

Section 159.—Flushing Cisterns.—Flushing cisterns shall be of cast iron, glass enamelled porcelain, stoneware, or other material approved by the Engineer, and shall be fixed at such height as will effectively flush the pan; but, except by special permission, no cistern shall be fixed at a less height, measured from top of seat to bottom of cistern, than 5 feet, where 1½-in. flush pipe is used, or 4 ft. 6 in. where 1½-in. flush pipe is used. There shall be a distance of at least 9 inches between top of cistern and ceiling of closet.

Every cistern shall be provided with an approved ball tap, and shall have a separate stop-tap and an overflow of ¾-inch internal diameter, and shall be fixed to cistern boards not less than 12 inches deep and 1½ inches thick, or fixed in other approved manner.

Water supply pipes to cisterns shall be adequate to fill any cistern at the rate of not less than one gallon per minute.

Section 160.—Flush Pipes.—Flush pipes to closet pans shall be of brass, copper, 6-lb. lead, galvanized iron of not less than 22-gauge, or other approved material, and shall have a minimum diameter of 1½ inch.

Section 161.—Flushing Apparatus Other Than Cisterns.—Notwithstanding anything contained in this By-law, closet pans in any building may be flushed by means of any apparatus which:—

- (a) Automatically controls the amount of water used, and/or
- (b) is approved by the Authority.

Section 162.—Storage Tanks.—Except where otherwise allowed by the Authority, on request, in writing, by the owner accepting all responsibility in the matter, internal water-closets shall be provided with storage tanks capable of holding six gallons of water for each occupant of the building, with a minimum of sixty gallons per closet for all buildings except private residences, which shall have a minimum capacity of thirty gallons, and flats with separate external entrances, which shall have a minimum

capacity of thirty gallons per tenement. These tanks may be of 22-gauge galvanized sheet iron or 24-gauge galvanized corrugated iron.

Unless otherwise directed by the proper officer, the storage tanks may be placed in the water-closet compartment itself, on the roof over a flat or gutter, or in an accessible place between the ceiling and the roof, in which latter case a safe of galvanized iron, lead, or other approved impervious material, with overflow, shall be fixed under the storage tank.

Section 163.—Construction of Urinals.—Only round-backed stall-type urinals of approved impervious material with gutter brick drains of the same approved impervious material shall be used. The soil pipe shall be of lead, stoneware, or glass enamelled or coated cast-iron or other approved material, shall be kept as short and free from bends as possible, and shall be trapped. Inspection openings shall be provided on soil pipes as directed with clamped covers. The urinals shall be provided with approved flushing apparatus, and a hose tap shall be provided in a suitable position for hosing down.

Section 164.—Treatment of Floors.—The floor in front of a urinal shall be covered with approved impervious material for a width of not less than two feet, or, if raised above floor level of urinal compartment, not less than one foot six inches and graded so as to drain to urinal.

Impervious Materials:

The following materials will be considered impervious:—

- (a) For urinals: glazed fire clay or salt-glazed stoneware or ceramic ware;
- (b) For floors in front of urinals: approved tiles set in cement mortar (composed of equal parts of cement and sand), concrete 4 inches thick rendered with ½-in. thick cement mortar, slate, marble, or asphaltum.

Section 165.—Flushing Apparatus.—Pull and clean flushing cisterns or other approved apparatus operated by hand, shall be fixed on all urinals except where automatic flushing cisterns are permitted or directed by the Engineer.

Section 166.—Flushing Cisterns.—The discharge from a cistern shall be equal to 1 gallon for each urinal stall, except where otherwise allowed by the Authority, but in no case shall more than three stalls be served by a single flushing apparatus.

The height of a cistern shall, unless otherwise allowed by special permission, be at least 6 ft. 6 in. from the floor to the bottom of the cistern. The cistern shall be so fixed that the ball tap is accessible.

The separate stop-tap shall be provided for each urinal cistern.

Section 167.—Flush Pipes.—Flush pipes for urinals shall be of brass or copper with gun-metal fitting, and shall have a minimum diameter of 1½ in., except that flush pipes for automatic flushing cisterns generally shall not exceed—

- For 1 gallon cistern, ¾ in. internal diameter;
- for 2 gallon cistern, 1 in. internal diameter;
- for 3 gallon cistern, 1½ in. internal diameter—

with branches as directed by the proper officer of the Authority.

DIVISION 32.—SLOP SINKS.

Section 168.—General.—Slop sinks shall be made in one piece of approved impervious material, and provided with approved flushing apparatus of 2½-gallon capacity.

Section 169.—Slop Sinks in Hotels.—Provide a slop sink on each floor containing bedrooms of every hotel or licensed victualler's premises, or as directed.

Section 170.—Ventilation, Light, &c.—Slop sinks shall be so placed and ventilated as to comply with the requirements for internal water closets as set out in this By-law.

Section 171.—Bib-cock Over Slop Sink.—A bib-cock shall be fixed directly over a slop sink, and at least 18 inches above such sink. A pedestal pan must be used wherever combined water closet, slop sink, and internal urinals are required, and in such case must be provided with hinged tip-up seat. A lead safe of suitable area must be fixed under the pan.

DIVISION 33.—WASH TROUGHS.

Section 172.—General.—Every wash trough shall be of approved pattern and material securely fixed and graded to outlet pipe, fitted with brass strainer sunk to level of bottom of trough.

Section 173.—Support for Lead Waste Pipe.—Where the distance between outlets on troughs exceeds 21 inches, and lead waste pipe is used, the pipe shall be supported either by a lead tack wiped on the top of the pipe or by a wooden block screwed to the bottom of the trough and clamped to the pipe.

Section 174.—Troughs Abutting Against Brick Wash Copper.—Wherever the end of a wash trough abuts against the brickwork of a wash copper, the space between the end of trough and the brickwork shall be filled with approved waterproof material and made watertight.

DIVISION 34.—SINKS, BATHS, LAVATORY BASINS, AND SHOWERS.

Section 175.—Sinks.—All sinks shall be fixed on brackets or on approved framing, and traps and wastes left readily accessible.

Section 176.—Galvanized Sheet-iron Baths.—The bottoms of galvanized sheet-iron baths shall be effectively supported. Such baths shall not be enclosed. Longitudinal joints in the bottom of baths shall not be permitted. Where it is necessary to fix new wastes to galvanized-iron baths, the bottoms of which are unsupported, efficient supports for the bath must be provided before the wastes are fixed.

Section 177.—Bath Traps.—Where a bath trap is fixed on the outside of a wall, it shall in no case be more than 3 feet from the outlet of the bath, unless by special permission of the Engineer.

Section 178.—Baths Without Flashing.—Where pedestal baths are fixed, and it is not desired to flash them, they shall be fixed with a space of at least 6 inches clear of walls.

Section 179.—Showers.—All shower compartments shall be provided with drainage in accordance with the requirements for baths, and the drainage outlet shall be fitted with brass grating.

The floors of shower compartments shall be well graded to the trapped outlet, and shall be constructed of not less than 4 inches of concrete, trowelled smooth, or covered with tiles set in cement mortar, or of other approved impervious materials, or, if constructed of timber, shall be covered with enamelled cast-iron, approved non-corrosive sheet-metal, or other approved material, turned up at the edges and flashed, in accordance with the requirements of section 95.

The walls of shower compartments shall be constructed of brickwork or concrete cement rendered to a smooth finish, or covered with tiles set in cement mortar, or of other approved impervious materials, or, if constructed of timber, shall be lined with approved non-corrosive sheet-metal or other impervious material, and with impervious joints.

Section 180.—Venting of Lavatory Basins.—Except as hereunder, all lavatory basins, placed singly, shall be provided with anti-siphonage vents. Where the length of waste pipe does not exceed 4 feet, measured from crown of trap to outlet end of waste pipe, and siphonage does not occur, the anti-siphonage vent may be omitted.

In ranges of lavatory basins, ventilation by means of a single vent pipe at the upper end of the range will be permitted, provided that the vent and main waste pipe is sufficiently large to prevent siphonage.

Section 181.—Tip-up Basins.—Tip-up lavatory basins shall not be permitted.

DIVISION 35.—SAFES AND OVERFLOWS.

Section 182.—Safes Where Directed.—Safes of lead, approved rubber flooring, or other approved impervious material, shall be fitted under slop sinks and internal water closets and in such other positions as directed, where there is not, already an impervious waterproof floor suitably graded and provided with approved drainage outlet.

Section 183.—Lead Safes in Water Closets, &c.—All lead safes shall be laid with sheet-lead weighing not less than 5 lb. per square foot, and, where the whole floor is not covered with lead, the safe shall extend 12 inches beyond the sides and 18 inches beyond the front of the pan, measured from the outside of the bowl, and shall extend back to, and 3 inches up the wall, and over-flashed, if directed. The roll of such safe shall be 2 inches wide and half an inch high, or as directed. In the case of baths, sinks, and lavatory basins, the lead or other approved impervious material, where directed, shall extend 6 inches beyond the ends or sides, measured from

the extreme edge of the fitting, and shall be carried back to and up the wall as for closets. Approved rubber flooring, $\frac{1}{2}$ in. thick, will be permitted if laid as directed by the Engineer.

Section 184.—Safe Overflows.—Unless otherwise permitted, every safe shall be drained by a separate 2-inch diameter pipe, provided at the inlet with a brass grating, and at the outlet into the open air with a flap valve of brass or other approved metal, and shall not connect with any waste pipe, soil pipe, drain, or sewer.

Section 185.—Cistern Overflows.—Every cistern supplied with water shall, unless otherwise approved, have an overflow pipe of adequate size discharging in a position where it will not cause damage, but where it will act as a warning pipe. On ground floors where cisterns are fixed over impervious floors graded to drain outside of the room, the overflow may discharge on to such floors, provided no damage is likely to arise therefrom.

Section 186.—Discharges from Overflows.—Overflows may discharge into the open air above ground level only when the discharge, in the opinion of the proper officer, will not cause any inconvenience or nuisance. In all other cases the pipes must be brought to the ground surface or be arranged to discharge where they will not prove a source of annoyance or inconvenience.

Section 187.—Steam Exhaust.—No steam exhaust, blow-off condensate, or drip pipe shall be connected with any drain or any soil or waste pipe.

Section 188.—Existing Floors.—Where necessary, in the opinion of the proper officer of the Authority, every existing floor under a fixture shall be regraded and a proper waste pipe and, if directed, a flap valve fixed.

DIVISION 36.—EXISTING FIXTURES, FITTINGS, ETC.

Section 189.—Existing Fittings.—Existing fittings and appliances which, in the opinion of the Engineer, fail to comply with such standards as set by the Authority, but are inoffensive, and which the owner may desire to retain unaltered, may, on the Engineer's recommendation, by the consent of the Authority, in writing, remain unaltered until the Authority shall otherwise order.

Existing fittings and appliances which fail to comply with the standard set by the Authority and are offensive must be removed immediately upon receipt of written notice from the Authority. Fittings and appliances not in accordance with these By-laws must only remain at the distinct request of the owner, and shall be removed at any future time if the Authority so orders. The last-mentioned request must be made to the Authority, in writing, by the owner or his authorized agent.

PART 6.—WATER SUPPLY.

DIVISION 37.—WATER SERVICES TO SANITARY FIXTURES.

Section 190.—Supply of Water to Fixtures.—All water closets and other plumbing fixtures shall be provided by the owner with a sufficient supply of water for flushing purposes to keep them at all times in proper and cleanly conditions.

Every owner of property, who desires, or has been ordered, to provide sanitary appliances for his own property and to connect his property with the sewers of the Authority, shall, before or at the commencement of the work of making such connection, provide piping approved of by the Authority for the conveyance of water, and shall cause the piping to be joined at the most convenient water-supply main, or, with the permission of the proper officer, to some pipe already joined to the main. Such piping shall be of sufficient capacity to supply all sanitary fittings on the property freely and continuously and convey to the flushing cistern, flushing tank, or other flushing apparatus of each water closet on the property enough water to fill the same at a rate of not less than one gallon per minute, and the owner shall cause such piping to be connected with the cistern, tank, or other flushing apparatus before the completion of the work.

The water-supply to any fixture shall be so arranged that there shall be an actual physical discontinuity between the water stored or used in any fixture and that in the water service pipe. The water-supply for the water closets or urinals shall not be taken from a storage tank serving a hot-water service.

Section 191.—Material, Condition, Capacity, &c., of Water-Supply Piping.—The entire length of the water-supply piping, from its connexion with the water-supply main to the water closet flushing cistern or other fixture, shall be such as is, in the opinion of the proper officer, suitable in regard to material, condition, and capacity to convey a sufficiency of water for the sanitary requirements of the particular tenement.

The owner shall keep the piping from becoming, whether by reason of corrosion or other cause, of insufficient capacity to fill the flushing cistern, storage tank, or other flushing apparatus at the rate of not less than one gallon per minute.

Section 192.—Fixtures not Connected with Sewers.—No water-service pipe shall be laid to supply any fixture in any property in any sewerage area unless such fixture is connected with the sewers of the Authority, or unless special permission, in writing, has been previously given to lay such service pipe.

Section 193.—Storage Tanks.—Water-supply pipes to storage tanks for internal closets shall be not less than $\frac{3}{4}$ -in. diameter, and be provided with stop taps and with high-pressure ball valves, except where the water pressure at the storage tank is not sufficient to allow of high-pressure ball valves being used; in such cases the permission of the Engineer shall be obtained to fix low-pressure ball valves. Where the head of the water-supply from the storage tank to the flushing cistern is less than twenty feet, a low-pressure ball valve shall be provided to the cistern.

Except by special permission of the Engineer, the head of water-supply shall in no case be less than ten feet, measured vertically from top water level of storage tank to the level of the point of discharge into the cistern, or to the flush valve, as the case may be.

The water-supply pipes from storage tanks to cistern shall not be less than the following diameter:—

For 1 to 2 cisterns	..	$\frac{3}{4}$ -in. diameter
For 3 to 6 cisterns	..	1-in. diameter
For 7 to 25 cisterns	..	1½-in. diameter
For 26 to 50 cisterns	..	2-in. diameter

Except by special permission of the Engineer, more than ten (10) cisterns shall not be subject to a head of less than twenty feet.

Where the number of water closets or urinals served by any storage tank exceeds two in the case of private residences or flats, or one for any other building, a full-way gate valve shall be provided on the outlet from the storage tank.

The overflow pipe from a storage tank shall not be less than 1½-in. in diameter, and shall lead to a gutter or open drain outside the building or outbuilding. In all water closets, a lead or annealed copper connexion, not less than twelve inches in length, shall be used between the flushing cistern and the supply pipe.

Section 194.—Supply Pipe Connection with Flushing Cistern.—In all water closets, where directed, a piece of lead or annealed copper pipe, not less than twelve inches in length, shall be used between the flushing cistern and the stop-cock on the supply pipe.

The above By-law was made and passed by the Korumburra Sewerage Authority on the 12th day of December, 1957, and confirmed on the 13th day of March, 1958.

In witness whereof the common seal of the Authority was hereto affixed in the presence of—

E. G. HARRIS, Acting Chairman.

(SEAL) V. G. SULLIVAN, Member.

M. H. GARDNER, Secretary.

Approved by the Governor in Council,
20th May, 1958.

N. G. WISHART,
Acting Clerk of the Executive Council.

[2131]



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THURSDAY, JULY 24

[1958

List of Fungicides, Insecticides,
Vermin Destroyers and
Weed Destroyers

Registered at the Office of the
Director of Agriculture under the
Fungicides Act 1935 (No. 4295)
for the year 1958

List of Fungicides, Insecticides, Vermin Destroyers and Weed Destroyers Registered at the Office of the Director of Agriculture under the Fungicides Act 1935 (No. 4295) for the year 1958.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent (s).				Wholesale Dealer.			
	Arsenic Pentoxide (As ₂ O ₅) Calculated on the Dry Basis.		Acidity Calculated as Nitric Dry Basis.	Content of Water.				
	Total.	Water Soluble.						
	Minimum.	Maximum.	Maximum.	Maximum.				
<i>Arsenate of Lead (Paste).</i>	%	%	%	%				
Vallo	32.0	.50	.2	50.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne			
Pannifex	31.0	.50	.2	50.0	H. C. Pannifex and Co. Pty. Ltd., 53-57 Munster-terrace, North Melbourne			
<i>Arsenate of Lead (Powder).</i>								
Blue Bell	31.0	.50	.2	..	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick			
R. & T.	31.0	.50	.2	..	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne			
Vallo	32.0	.50	.2	..	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne			
Pannifex	31.0	.50	.2	..	H. C. Pannifex and Co. Pty. Ltd., 53-57 Munster-terrace, North Melbourne			
Lane's	31.0	.50	.2	..	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine			
Hortico	32.0	.50	.2	..	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne			
Sigma	32.0	.50	.2	..	Sigma Co. Ltd., 589 Collins-street, Melbourne			
Unity	32.5	.50	.2	..	T. E. Butler and Co. Pty. Ltd., 486 Collins-street, Melbourne			
Shell	31.0	.50	.2	..	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne			
Agserv	32.0	.50	.2	..	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne			
Mustex	31.0	.50	.2	..	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne			
Yates'	32.0	.50	.2	..	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn			
Clark's	32.0	.50	.2	..	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne			
Elliotts	31.0	.50	.2	..	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne			
<i>Arsenate of Lead (with additions).</i>				%				
Blue Bell D.D.T.—Lead ..	{	D.D.T.	14.0	{	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick		
Blue Bell Super D.D.T.—Lead		Arsenic pentoxide (As ₂ O ₅)	28.0		{	" " " "	
		D.D.T.	25.0			{	T. E. Butler and Co. Pty. Ltd., 486 Collins-street, Melbourne
		Arsenic pentoxide (As ₂ O ₅)	23.5				
Unity Mercurated Lead Arsenate Powder		Phenyl mercuric chloride	2.5				
		Arsenic pentoxide (As ₂ O ₅)	31.0				
<i>Calcium Arsenate.</i>				%				
Vallo		Arsenic pentoxide (As ₂ O ₅)	40.0		Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne		
<i>Sulphate of Copper (Bluestone).</i>				%				
Hart's Sugar Bluestone		Copper (Cu)	25.0		Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne		
Hortico Minus 40		"	25.0		Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne		
Lane's		"	25.0		Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine		

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).			Wholesale Dealer.
	Percentage Copper (Cu).	Percentage Copper (Cu) Water Soluble.	Percentage through 200-mesh Sieve.	
<i>Basic Copper Sprays.</i>	%	%	%	
Superfine Cuprox (Oxychloride) ..	50.0	..	..	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Vallo Superfine Copper Spray (Oxychloride)	50.0	..	..	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Blitox 50 (Oxychloride) ..	50.0	..	..
Lane's Copper 50 Spray (Oxychloride)	50.0	..	..	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Kopi (Oxychloride) ..	50.0	..	..	" " " " " "
Lane's Cuprolane (Oxychloride) ..	50.0	..	..	" " " " " "
Blue Bell Coppo (Oxychloride) ..	50.0	..	..	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Micronised Coppo (Oxychloride)	50.0	..	..	" " " " " "
Agserv (Oxychloride) ..	50.0	..	..	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Copper Fungicide Ultra (Oxychloride)	52.0	..	..	Dangar, Gedye, and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
Shell (Oxychloride) ..	50.0	..	..	Shell Chemical (Aust.) Pty. Ltd., 278 Queen-street, Melbourne
Elliotts Oxi-Cop (Oxychloride) ..	50.0	..	..	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Mustex (Oxychloride) ..	50.0	..	..	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Cuprofine (Oxychloride) ..	50.0	..	..	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
Yates' Copper Spray (Oxychloride) ..	50.0	..	..	Arthur Yates and Co. Pty. Ltd., Burwood-road, Hawthorn
George C. Warner's Coppa Crop (Oxychloride)	50.0	..	..	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
<i>Bunticides (Basic Copper Salts).</i>			%	
Vallo Anti-Bunt (Oxychloride) ..	Copper (Cu)	..	.. 52.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Elliotts Bunticide (Oxychloride) ..	"	..	.. 50.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Kilspor (Carbonate) ..	"	..	.. 50.0	Alf. Hannaford and Co. Ltd., Port-road, Woodville, S.A., and Victoria-street, Dimboola
<i>Bunticides (Organic Mercury Compounds).</i>			%	
Ceresan ..	Organically Combined Mercury	..	1.5	Dalgaty and Co. Ltd., 461 Bourke-street, Melbourne
Lunasan ..	"	"	0.54	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Elliotts Kleenseed ..	"	"	1.2	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Lane's Mercurial Seed Dressing	"	"	1.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Betonat ..	Benzene Hexachloride	..	0.5	"
	Methoxy ethyl mercurisulfate	..	5.0	Dangar, Gedye, and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
<i>Bunticides (Hexachlorobenzene).</i>			%	
Hexcebut ..	Hexachlorobenzene	..	30.0	Timbrol Co., 55 Flemington-road, North Melbourne
Hexcebut L* ..	"	..	30.0	" " " " " "
Vallo H.C.B. ..	Benzene Hexachloride	..	0.5	"
	Hexachlorobenzene	..	30.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Elliotts Puraseed ..	"	..	25.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Lane's H.C.B. ..	"	..	30.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
<i>Bordeaux Mixture.</i>			%	
Hortico (Powder) ..	Copper (Cu)	..	12.5	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Bord-O-Kwik (Paste) ..	"	..	17.5	
Vallo (Powder) ..	"	..	12.5	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Yates' Super Bordone ..	"	..	21.5	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
<i>Paris Green.</i>			%	
Nosco ..	Arsenious Oxide (As ₂ O ₃)	..	57.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
D.H.A. ..	"	..	53.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne

* Benzene Hexachloride present as Lindane.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).			Wholesale Dealer.
<i>Miscellaneous Copper Compounds.</i>				
Lane's Bordox Powder	Copper (Cu)	12.5		Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Copper Oxydul Ultra	"	80.0		Dangar, Gedye, and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
	Thio-Sulphate Sulphur.	Poly-Sulphide Sulphur.	Total Soluble Sulphur.	
<i>Concentrated Lime-Sulphur (Solution).</i>				
	Weight in Volume.			
	%	%	%	
Hortico	2.5	20.0	28.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Blue Bell	2.5	20.0	28.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Vallo	2.5	20.0	28.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
R. & T.	2.5	20.0	28.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Wilmo	2.5	20.0	28.0	Wilcox Mofflin Ltd., 34 King-street, Melbourne
Agserv	2.5	20.0	28.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Elliotts	2.0	20.0	28.0	D.H.A. (Victoria) Pty Ltd., 504 Bourke-street, Melbourne
Harola	2.5	20.0	28.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Shell	2.5	20.0	28.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Mustex	2.5	20.0	28.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Yates'	2.5	20.0	28.0	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
Tip Top	2.5	20.0	28.0	Law Somner Pty. Ltd., Dandenong-road, Clayton
	Sulphur.		Calcium Hydrate.	
	%		%	
<i>Lime and Sulphur (Dry Mix).</i>				
Pannifex	62.5		35.5	H. C. Pannifex and Co. Pty. Ltd., 53-57 Munster-terrace, North Melbourne
Vallo	50.0		49.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
<i>Sulphur.</i>				
	Sulphur	%		
Commonwealth (Dusting)	"	90.0		Commonwealth Fertilizers and Chemicals Ltd., 65 William-street, Melbourne
" (Powdered)	"	99.5		" " " " " " "
" (Atomic Dusting)	"	90.0		" " " " " " "
" (Atomic)	"	99.5		" " " " " " "
" (Wetomic)	"	97.0		" " " " " " "
Flotox	"	95.0		H. C. Pannifex and Co. Pty. Ltd., 53-57 Munster-terrace, North Melbourne
Vallo (Powdered)	"	99.5		Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
" (Dusting)	"	90.0		" " " " " " "
" (Wettable)	"	98.0		" " " " " " "
" Micro-Sul	"	95.0		" " " " " " "
Microtomic Sulphur	"	91.7		Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Ver-Kem Wettable	"	98.0		Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem 90% Dusting Plane (Dusting)	"	90.0		Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell (Colloidal)	"	50.0		" " " " " " "
Cosan (Colloidal)	"	50.0		Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Cosan (Powder)	"	80.0		" " " " " " "
Nosco (Dust)	"	90.0		" " " " " " "
Sulspray	"	97.0		" " " " " " "
Lane's	"	99.5		" " " " " " "
Lane's Micro-Mill	"	91.0		" " " " " " "
Sigma (Powder)	"	100.0		Sigma Co. Ltd., 589 Collins-street, Melbourne
Hortico (Dusting)	"	90.0		Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Colsul (Colloidal)	"	40.0		Dangar, Gedye, and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
Top Wettable Sulphur	"	95.0		D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts Aquasul	"	95.0		H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex (Colloidal)	"	50.0		" " " " " " "
Mustex Supasul	"	80.0		" " " " " " "
Mustex (Dispersible)	"	81.0		" " " " " " "
Shell Micronised	"	91.0		Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
George C. Warner's	"	80.0		A. C. Hatrick Pty. Ltd., Centre-road, Spring-vale

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Nicotine Sulphate and Nicotine.</i>		
	%	
Hortico	Nicotine 40	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Vallo	" 40	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Elliotts	" 40	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Clark's	" 40	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Wilmo	" 40	Wileox Moffin Ltd., 34 King-street, Melbourne
Sigma	" 40	Sigma Co. Ltd., 589 Collins-street, Melbourne
Tip Top	" 40	Law, Somner Pty. Ltd., Dandenong-road, Clayton
Lane's Nico Spray 40	" 40	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
R. & T.	" 40	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Hart's	" 40	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Watters	" 40	Watters and Sons Pty. Ltd., 217 Queen-street, Melbourne
Kix	" 40	David Chemicals Pty. Ltd., Centre-road, Clayton
Yates' Nicotine 40	" 40	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
George C. Warner's Nicotine 40	" 40	A. C. Hatrik Pty. Ltd., Centre-road, Springvale
<i>Tar Distillate.</i>		
	%	
Winterwash A	Tar Oil 70.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Wintrol	{ Tar Oil 50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	{ Phenols 10.0	
	{ Mineral Oil 20.0	
Vallo Ovicidal Wash	Emulsifiable Oils 89.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Hortico	Emulsifiable Oils 89.0	Horticultural Industries Pty. Ltd. Plummer-street, Port Melbourne
Mustex Winter Tar Wash	{ Tar Oils 39.06	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
	{ Cresols 5.16	
	{ Mineral Oil 14.5	
Tip Top Ovicidal Wash	{ Tar Oil 45.0	Law, Somner Pty. Ltd., Dandenong-road, Clayton
	{ Mineral Oil 25.0	
	{ Phenols 9.0	
<i>White Spraying Oil or Emulsion.</i>		
	%	
Hortico	White Mineral Oil 74.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Alboleum	" 80.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
R. & T. Emulsion	" 72.5	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
Mobil	" 72.5	
Mobil Superior Summer Spray	" 80.3	H. C. Pannifex and Co. Pty. Ltd., 53-57 Munster-terrace, North Melbourne
Kleenup	" 70.0	
Volck	" 70.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Whitespray	" 74.5	
Vallo	" 74.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Atlantic Emulsified	" 74.3	Atlantic Union Oil Co. Pty. Ltd., 360 Lonsdale-street, Melbourne
Flit 400	" 87.25	Victorian Chemical Co. Pty. Ltd., "Appleton"-street, Richmond
Code 103 H.I.	" 73.0	
Albarol	" 69.6	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Agserv	" 82.5	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Mustex	" 68.8	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex 100	" 83.42	Law, Somner Pty. Ltd., "Dandenong"-road, Clayton
Tip Top	" 74.0	
Yates'	" 82.5	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
<i>Pale Spraying Oil.</i>		
	%	
Shell Palespray	Pale Mineral Oil 80.4	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shellicide D.	" 75.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Nosco	" 73.6	

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Red Spraying Oil.</i>		
	%	
Hortico	Red Mineral Oil 67.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Gargoyle M	" " " " " " 76.8	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
Shell Redaspray	" " " " " " 80.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Vallo	" " " " " " 89.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Atlantic	" " " " " " 82.0	Atlantic Union Oil Co. Pty. Ltd., 360 Lonsdale-street, Melbourne
Harbas	" " " " " " 66.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Scalex	" " " " " " 77.5	" " " " " " " "
R. & T. Super	" " " " " " 82.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Agserv	" " " " " " 89.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Yates'	" " " " " " 89.0	Arthur Yates and Co. Pty. Ltd., Burwood-road, Hawthorn
<i>Winter Spraying Oil.</i>		
(See also "D.D.T. Sprays".)		
	%	
Lane's Superior Winter Spraying Oil	Mineral Oil 90.8	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
D.N.C.	{ Mineral Oil 80.0	" " " " " " "
	{ Dinitro-ortho-cresol 2.5	
Mobil Superior Winter Spray	Mineral Oil 82.0	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
Shell Superior Dormant Oil..	Mineral Oils 81.5	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Universal Winterspray	Solution Nitrated Phenols in Oil .. 78.5	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Vallo Superior Dormant Spraying Oil	Mineral Oils 84.0	
Mustex Dormol	" " " " " " 83.4	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
<i>Miscellaneous Spraying Oils.</i>		
	%	
Mobil Miscible Green Spraying Oil	{ Pale Mineral Oil 86.0	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
	{ D.D.T. 5.8	
Shell Endrin Aphis Spray ..	{ Aliphatic Thiocyanate 1.5	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
	{ Mineral Oil 93.8	
R. & T. Super Red + Endrin Spraying Oil	{ Endrin 1.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
	{ Mineral Oil 93.8	
Mustex Superior Hexon Oil*	{ Endrin 1.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
	{ Mineral Oil 77.4	
Lane's Lindol Superior Spraying Oil*	{ Benzene Hexachloride 1.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	{ Mineral Oil 89.0	
	{ Benzene Hexachloride 1.5	
<i>Arsenic (Oxides).</i>		
	%	
Vallo (White)	Arsenic (As ₂ O ₃) 98.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
" (Pentoxide) Granulated	Arsenic Pentoxide (As ₂ O ₅) 89.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Hart's (White)	Arsenic (As ₂ O ₃) 99.5	
D.H.A. (White)	" " " " " " 88.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
<i>Snail and Slug Killers.</i>		
	%	
Bug-Geta	Metaldehyde 1.5	Guano Plant Force and Pest Control Co., 53-57 Munster-terrace, North Melbourne
Sure Death	" " " " " " 1.50	C. A. Schache, 2A Lunan-avenue, Drumcondra, Geelong
Defender	" " " " " " 1.25	Law, Somner Pty. Ltd., Dandenong-road, Clayton
Slugtox	" " " " " " 1.5	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Brown Magic	" " " " " " 1.0	E. H. Page, 1264 High-street, Malvern
Instant 265	{ Metaldehyde 1.4	
	{ Arsenic (As ₂ O ₃) 0.75	G. A. and F. M. Grant, Cnr. Nepean Highway and Trueman's-road, Rosebud West
K.O.4	{ Metaldehyde 1.25	
	{ Sodium Silicofluoride 1.0	Gibson-Kolite Chemicals Pty. Ltd., Reserve-road, Cheltenham
Killsem	{ Metaldehyde 1.25	
Lane's Snail Slug Spray	" " " " " " 20.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Mota Tablets	" " " " " " 100.0	" " " " " " " "
Taylor's No. 13	" " " " " " 1.46	British Paints (Aust.) Pty. Ltd., 10 Coora-road, Huntingdale

* Benzene Hexachloride present as Lindane.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Snail and Slug Killers—continued.</i>		
Kix Snail Death	Metaldehyde 1.25	David Chemicals Pty. Ltd., Centre-road, Clayton
Plane Instant 265	{ Arsenic (As ₂ O ₃) 1.4 Metaldehyde 0.75	{ Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Avery .. .. .			Avery's Fertilizer Co. Pty. Ltd., Princess-street, East Preston
Slugit (Liquid)	{ Metaldehyde 20.0 Sodium Pentachlorophenate 0.2	{ E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
C.D.V. Meta Snail Bait .. .. .			Vermin Destruction Co. Pty. Ltd., 230 Toorak-road, Hartwell
Snail Rokka	" 1.5	Houghton and Byrne (Vic.) Pty. Ltd., 20A Nicholson-street, East Brunswick
Clark's Snail Death	Metaldehyde 1.25	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
Quik-Kil	{ Benzene Hexachloride 2.0 Copper Pentachlorophenate 0.05	{ Creamoata Ltd., Sunshine-road, West Footscray
Pentafluke .. .. .			Timbrol Co., 55 Flemington-road, North Melbourne
<i>Nicotine Dusting Powder.</i>		%
Plane Nicodust No. 3	Nicotine 3.00	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
R. & T.	" 3.00	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Vallo N.40	" 2.50	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Lane's Nico-Dust No. 3	" 3.00	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Ver-Kem Nico No. 3 Dust	" 3.00	Vermont Agricultural Chemicals Pty. Ltd., Rocks-road, Vermont
Ver-Kem Nico No. 5 Dust	" 5.00	" " " " " "
<i>Arsenical Dusting Powder.</i>		%
Vallo A.L. 50	Arsenic Pentoxide (As ₂ O ₅) 16.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
<i>Rotenone Dusting Powders.</i>		%
Drymac	Rotenone 0.25	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Nosco Derris Dust	" 0.75	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Hortico Derris Dust	" 0.75	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Keogh's Derris Dust	" 0.75	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Derridust	" 0.50	Houghton and Byrne (Vic.) Pty. Ltd., 20A Nicholson-street, East Brunswick
Mustex Derris Dust	" 0.75	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Yates'	" 0.75	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
<i>D.D.T. Dusting Powders.</i>		%
Plane Noxide No. 200	D.D.T. 2.00	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Noxide No. 500	" 5.00	" " " " "
Pespruf 2	" 2.00	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Rudust A	" 2.0	" " " " "
R. & T. 10%	" 10.0	" " " " "
R. & T. 5%	" 5.0	" " " " "
R. & T. 15%	" 15.0	" " " " "
Agserv 2%	" 2.0	Wm. Houghton and Co. Ltd., 545 Little Collins-street, Melbourne
" 10%	" 10.0	" " " " "
Ver-Kem D.D.T. No. 200	" 2.0	Vermont Agricultural Chemicals Pty. Ltd., Rocks-road, Vermont
Ver-Kem D.D.T. No. 500	" 5.0	F. H. Faulding and Co. Ltd., 123 Lonsdale-street, Melbourne
Faulded Insect Powder	" 9.5	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Vallo	" 2.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's No-Verm	" 2.0	" " " " "
Lane's No-Verm No. 5	" 5.0	" " " " "
Lane's No-Verm No. 15	" 15.0	" " " " "
Mustex 2% D.D.T. Agriculture Dust	" 2.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Yates' D.D.T. Dust	" 2.0	Arthur Yates and Co. Pty. Ltd., Burwood-road, Hawthorn

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).					Wholesale Dealer.
<i>Endrin Dusting Powders.</i>						
					%	
Ver-Kem Endrin 50 Dust	Endrin				0.5	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Endrin 75 Dust	"				0.75	"
R. & T. Endrin Dust	"				0.75	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
<i>Copper Dusting Powders.</i>						
					%	
Plane Copper Dust No. 11	Copper (Cu)				11.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Ver-Kem Copper No. 11 Dust	"				11.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
<i>Zineb Dusting Powders.</i>						
					%	
Plane Zineb Dust No. 6	Zinc ethylene-bis-di-thiocarbamate				6.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
R. & T. Zineb Dust	"				3.0	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
Ver-Kem Zineb No. 6 Dust	"				6.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
George C. Warner's	"				6.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
<i>Dieldrin Dusting Powders.</i>						
					%	
Lane's Dieldrin 25% Dust	Dieldrin				25.0	Lane's (Sunshine) Pty. Ltd., 18-20 First- avenue, Sunshine
Lane's Dieldrin 10% Dust	"				10.0	"
Lane's Dieldrin 2% Dust	"				2.0	"
<i>Malathion Dusting Powders.</i>						
					%	
Plane Malathion Dust No. 1	Malathion				2.5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Malathion Dust No. 2	"				5.0	"
R. & T. Malathion 5% Dust	"				5.0	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
Ver-Kem Malathion No. 50 Dust	"				5.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Nosco Malathion 5% Dust	"				5.0	Lane's (Sunshine) Pty. Ltd., 18-20 First- avenue, Sunshine
<i>Benzene Hexachloride Dusting Powders.</i>						
					%	
Gammexane 4	Benzene Hexachloride				0.5	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
" 20	"				2.6	"
R. & T. Lindano Dust*	"				1.0	"
Rudust L*	"				1.0	"
Lane's B.H.C. 4	"				0.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
" 10	"				1.3	"
" 20	"				2.6	"
Lane's Lindane 1% Dust*	"				1.0	"
Lane's Lindane 2½% Dust*	"				2.5	"
Lane's Lindane 10% Dust*	"				10.0	"
Lorexane*	"				0.2	Imperial Chemical Industries of Aust. and N.Z. Ltd., 408 Latrobe-street, Melbourne
Gammexane V*	"				1.0	"
Gammexane Animal Dusting Powder (Deodorised)*	"				0.5	"
Agserv Agra*	"				0.5	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Agserv Lindane Pest*	"				1.0	"
Cola Nexa Lindane Pasture Dust*	"				5.0	"
Plane Lindane No. 50*	"				0.5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Lindane No. 100*	"				1.0	"
Ver-Kem Lindane No. 100*	"				1.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Mustex Hexon 10	"				1.3	H. Hanna and Co. Pty. Ltd., 114-116 King- street, Melbourne
Mustex Hexon 20	"				2.6	"
Perminex	"				0.5	Scott and Turner Ltd., 5 Cato-street, Auburn
Yates' Agra Dust*	"				0.5	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn

* Benzene Hexachloride present as Lindane.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).				Wholesale Dealer.
	Nicotine.	Arsenic Pentoxide (As ₂ O ₅).	Tar Oil.		
	%	%	%		
Mixed Dusting Powders.					
Ver-Kem Aphis Dust No. 3 ..	3.00	..	3.00		Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Aphidust No. 3 ..	3.00	..	3.00		
	Arsenic Pentoxide (As ₂ O ₅).	Copper (Cu).	Sulphur.		
	%	%	%		
Vallo Tomato and Vegetable No. 1 ..	16.0	5.0	40.0		Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
" " " " " " No. 2 ..	8.0	5.0	40.0		
Lane's Azurine " " " " " " ..	..	11.0	35.0	
Plane Azurine No. 20c ..	6.2	7.0	40.0		Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Azurine No. 2 ..	..	7.0	40.0	
Mustex Tomato Dust "A.L." ..	7.75	4.0	40.0		
	D.D.T.	Nicotine.	Copper (Cu).	Sulphur.	
	%	%	%	%	
Nosco Tomato No. 1 ..	2.00	..	2.50	42.00	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's M.I.A. Tomato Dust No. 1 ..	1.00	..	..	50.00
Lane's M.I.A. Tomato Dust No. 2 ..	2.00	..	..	50.00
Sanroma Tomato ..	2.00	..	4.00	40.00	San "Roma" Chemicals Pty. Ltd., 227 Bay-street, North Brighton Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Pespruf 5 ..	2.00	..	7.50	40.00	
Rudust F ..	2.00	..	7.00	40.00	
R. and T. Low Copper Tomato Dust ..	2.0	..	4.0	40.00	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Clark's Tomato Dust ..	1.00	..	4.00	40.00	
Agserv No. 2 Tomato and Vegetable Dust ..	2.00	..	..	40.00
Plane Azurine No. 4	11.00	40.00	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Azurine No. 100c ..	1.00	..	7.00	40.00	
Plane Azurine No. 200c ..	2.00	..	7.00	40.00	
Plane Tomato Dust No. 42 ..	2.00	40.00	" " " " " " " "
Plane Tomato No. 200c ..	2.00	..	4.00	40.00	
Plane Noxide No. 200 N.2 ..	2.00	2.00	..	..
Plane Noxide No. 200 N.3 ..	2.00	3.00	" " " " " " " "
Mustex Tomato Dust ..	2.00	..	4.00	40.0	
Houghton and Byrne's Tomato Dust ..	2.00	..	4.2	40.0	
	D.D.T.	Benzene Hexachloride.			
	%	%			
Pespruf 2g ..	1.0	.13			Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Rudust B ..	1.00	.13			
Rudust C ..	2.00	.26			
Rudust D ..	3.00	.39			" " " " " " " "
Pespruf 4g ..	2.00	.26			
R. & T. Vegetable Dust ..	3.0	.39			
Plane Vegedust* ..	2.0	.50			Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Noxide 100 G.2* ..	1.0	.26			
Plane Noxide 200 G.2* ..	2.0	.26			
Lane's Cabbage ..	2.0	.26			Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Nosco Super Cabbage Dust ..	2.0	.65			
Kix Garden ..	1.5	.13			
Zed ..	1.5	.13			David Chemicals Pty. Ltd., Centre-road, Clayton Houghton and Byrne (Vic.) Pty. Ltd., 20a Nicholson-street, East Brunswick
Hortico Garden ..	1.0	.13			
Ver-Kem Vege Dust No. 25* ..	2.0	0.50			
Clark's Garden Dust ..	1.0	0.13			Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Mustex Cabbage Dust Super Grade ..	2.0	0.65			
Yates' Cabbage Dust ..	2.0	0.25			

* Benzene Hexachloride present as Lindane.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).				Wholesale Dealer.
	D.D.T.	Benzene Hexachloride.	Copper (Cu).	Sulphur.	
<i>Mixed Dusting Powders—continued.</i>					
	%	%	%	%	
Rudust H	1.00	.26	4.00	40.00	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
R. & T. Lettuce Dust	2.00	.40	7.0	..	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane G.P. with Copper*	2.0	0.2	4.0	40.0	" " " " " " " "
Plane Tomato No. 157*	1.5	0.1	7.0	40.0	" " " " " " " "
Hortico Tomato Dust	1.0	0.26	4.0	40.0	Horticultural Industries Pty. Ltd., "Plummer"-street, Port Melbourne
Kix Tomato Dust	1.0	0.26	7.5	40.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Lane's All Purpose Dust	2.0	0.26	2.0	42.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Ver-Kem Seed Bed Dust*	1.0	0.5	8.0	30.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
	D.D.T.	Benzene Hexachloride.	Sulphur.	Zinc Ethylene Bisdithiocarbamate.	
	%	%	%	%	
Plane Azurine No. 100	1.00	..	40.00	4.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Plane Zi-Lin No. 94* .. .. .	..	0.40	..	4.0	" " " " " " " "
Plane Tomato No. 200	2.00	..	40.00	2.0	" " " " " " " "
Plane Azurine No. 200	2.00	..	40.00	4.0	" " " " " " " "
Plane G.P. Dust with Zineb*	2.00	0.20	40.00	2.0	" " " " " " " "
Plane Tomato No. 158*	1.50	0.10	40.00	4.0	" " " " " " " "
Plane Azurine No. 9 .. .. .	..	..	40.00	4.0	" " " " " " " "
Plane Azurine No. 14 .. .. .	..	..	40.00	6.0	" " " " " " " "
Rudust F Plus	2.0	..	40.00	5.0	Ramsay and Treganowan Ltd., 475 Latrobe-street, Melbourne
R. & T. Zineb Tomato Dust	2.0	..	40.00	3.0	" " " " " " " "
Lane's Super Tomato Dust containing Zineb	2.0	..	40.00	6.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Ver-Kem G.P. Dust*	2.0	0.2	40.00	4.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Tomato No. 166 Dust*	1.6	0.2	40.00	4.0	" " " " " " " "
<i>Miscellaneous Dusting Powders.</i>					
	D.D.T.	Pyrethrins	Sulphur	%	
Mortein Garden .. .. .	..	..	..	2.0	Samuel Taylor Pty. Ltd., 66 Hardware-street, Melbourne
	D.D.T.	Copper zinc chromate	Zinc ethylene-bis-di-thiocarbamate	0.23	
Keogh's Tomato Pest Control .. .. .	..	..	..	20.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Clark's Derris Dust with Nicotine .. .. .	..	..	..	2.0	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
R. & T. Nicotine and Endrin Dust .. .. .	..	..	..	0.5	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
	..	..	..	0.75	" " " " " " " "
	..	..	..	0.2	" " " " " " " "
R. & T. Vine Dust .. .. .	..	..	..	1.5	" " " " " " " "
	..	..	..	0.75	" " " " " " " "
Ver-Kem Nico plus Endrin Dust .. .. .	..	..	..	3.0	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
	..	..	..	40.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
	..	..	..	0.75	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
Ver-Kem Tomato 200 Dust .. .. .	..	..	..	2.0	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
	..	..	..	40.0	" " " " " " " "
	..	..	..	0.5	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
	..	..	..	5.0	" " " " " " " "
	..	..	..	0.5	" " " " " " " "
Ver-Kem Complete Tomato Dust No. 25* .. .. .	..	..	..	30.0	" " " " " " " "
	..	..	..	0.3	" " " " " " " "
	..	..	..	0.5	" " " " " " " "
	..	..	..	3.0	" " " " " " " "
Ver-Kem Lettuce Dust* .. .. .	..	..	..	3.0	" " " " " " " "
	..	..	..	0.4	" " " " " " " "
	..	..	..	4.0	" " " " " " " "
Plane Azurine No. 20 .. .. .	..	..	..	6.2	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
	..	..	..	40.0	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
Plane Vine Dust No. 3 .. .. .	..	..	..	3.0	" " " " " " " "
	..	..	..	40.0	" " " " " " " "
	..	..	..	2.0	" " " " " " " "
Plane Vine Dust No. 5 .. .. .	..	..	..	5.0	" " " " " " " "
	..	..	..	40.0	" " " " " " " "
Lane's T.D.E. Dust .. .. .	..	..	..	5.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	..	..	..	2.0	" " " " " " " "
Lane's Composite Dust .. .. .	..	..	..	0.1	" " " " " " " "
	..	..	..	0.75	" " " " " " " "
Lane's T.D.E. Sulphur Dust .. .. .	..	..	..	5.0	" " " " " " " "
	..	..	..	50.0	" " " " " " " "
Fluor-O-Cide .. .. .	..	..	..	90.0	Sulphates Ltd., Princes Highway, Springvale

* Benzene Hexachloride present as Lindane. † Tetrachlorodiphenylethane; synonymous with dichlorodiphenyl dichloroethane (D.D.D.). The percentage shown is in terms of the para para isomer.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).			Wholesale Dealer.
<i>D.D.T. Sprays.</i>			%	
Prespruf 20 Emulsion	D.D.T.	..	20.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
" 50 Dispersible Powder ..	"	..	50.0	" " " " " "
Rulene	"	..	25.0	" " " " " "
Runol	"	..	20.0	Imperial Chemical Industries of Aust. and N.Z. Ltd., 408 Latrobe-street, Melbourne
Rucide	"	..	50.0	" " " " " "
Rukream	"	..	20.0	" " " " " "
I.C.I. 25% Miscible Oil	"	..	25.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Wellspray 50 Dispersible Powder ..	"	..	50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Wellspray Emulsion	"	..	25.0	" " " " " "
Emulsane 20	"	..	20.0	" " " " " "
Emulsane 25	"	..	25.0	" " " " " "
Aphitox	"	..	4.0	" " " " " "
Lane's Outspan 25% Miscible Oil ..	Mineral Oil	..	78.0	" " " " " "
Shell 25% Emulsion	D.D.T.	..	25.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Aphis Spray	"	..	4.0	" " " " " "
Shell Superior Aphis Spray ..	Mineral Oil	..	78.0	" " " " " "
Shell Miscible Oil	D.D.T.	..	4.4	" " " " " "
Kix Garden	Mineral Oil	..	90.0	" " " " " "
Kix Orchard and Vegetable Spray ..	D.D.T.	..	25.0	David Chemicals Pty. Ltd., Centre-road, Clayton
David Chemicals D.D.T. Emulsion ..	D.D.T.	..	9.0	" " " " " "
David 25% Miscible Oil	"	..	20.0	" " " " " "
Blue Bell D.D.T. Paste	"	..	25.0	" " " " " "
Blue Bell D.D.T.—20 Emulsion ..	"	..	25.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Diaphid	"	..	36.0	" " " " " "
Blue Bell D.D.T.—50 Powder ..	"	..	20.0	" " " " " "
Ver-Kem Verleen	"	..	4.0	" " " " " "
Hart's Killagrub	"	..	50.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Hart's D.D.T. 25	"	..	25.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Vallo 25% Emulsion	"	..	25.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Vallo 20% Emulsion	"	..	20.0	" " " " " "
Vallo D.D.T. 50	"	..	50.0	" " " " " "
Dee Spray	"	..	20.0	Wilcox Moffin Ltd., 34 King-street, Melbourne
Ddeath Emulsion	"	..	20.0	J. D. Harmsworth and Co. Pty. Ltd., Cr. Madden and Molan streets, Ringwood
" Poultry Spray	"	..	2.0	" " " " " "
" 25% D.D.T. Mayonnaise ..	"	..	25.0	" " " " " "
Osmotox	"	..	40.0	Osmond and Sons (Aust.) Pty. Ltd., 35 William-street, Melbourne
Grazcos D.D.T. Mayonnaise ..	"	..	25.0	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Grazcos D.D.T. Emulsion	"	..	25.0	" " " " " "
Elliot's Kropgard 25	"	..	25.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliot's Hortogar	"	..	20.0	" " " " " "
Elliot's D.D.T. 50 Wettable Powder ..	"	..	50.0	" " " " " "
Taylor's No. 13 Emulsion	"	..	9.5	British Paints (Aust.) Pty. Ltd., 10 Coora-road, Huntingdale
Hortico 25% D.D.T. Emulsion ..	"	..	25.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Agserv Fogrite 5	"	..	14.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Agserv D.D.T. Mayonnaise ..	"	..	25.0	" " " " " "
Agserv D.D.T. Miscible	"	..	25.0	" " " " " "
Keogh's D.D.T. Paste	"	..	39.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
E-Mul	"	..	25.0	H. Fredman Pty. Ltd., High-street, Shepparton
T.C. 25 Garden and Orchard Spray ..	"	..	25.0	Tredmar Chemical Products, 159 Dandenong-road, Windsor
Clark's Farm Spray	"	..	20.0	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
Nufarm Toxi-Pest 25% Emulsion ..	"	..	25.0	Nufarm Rural Products Pty. Ltd., 142 Sydney-road, Coburg
Nightingale 25% D.D.T. Emulsifiable Concentrate ..	"	..	25.0	The Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Mustex 25% D.D.T. Emulsion ..	"	..	25.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex 20% D.D.T. Emulsion ..	"	..	20.0	" " " " " "
Mustex Supacide	"	..	25.0	" " " " " "
Mustex Dispersible D.D.T. 50 Powder ..	"	..	50.0	" " " " " "
Mustex Aphis Oil	"	..	4.0	" " " " " "
Mobilispray D.D.T.	Mineral oil	..	74.1	" " " " " "
Sanico	D.D.T.	..	20.0	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
	"	..	25.0	Industrial Sanitation Co., 1071 High-street, Armadale

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).				Wholesale Dealer.	
				%		
<i>D.D.T. Sprays—continued.</i>						
McLean's 25% D.D.T. Miscible Oil ..	D.D.T. ..	..	..	25.0	N. C. McLean, 93 Nicholas-street, Ashburton
Yates' D.D.T. 25 ..	" ..	..	..	25.0	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
Kleenland D.D.T. Emulsion ..	" ..	..	..	25.0	Wheat and Woolgrowers Co-operative Ltd., 28 Collins-street, Melbourne
George C. Warner's D.D.T. 40% Wettable Powder	" ..	..	..	40.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
George C. Warner's D.D.T. 25% Mayonnaise	" ..	..	..	25.0	" " " " " "
George C. Warner's D.D.T. 20% Emulsion	" ..	..	..	20.0	" " " " " "
George C. Warner's D.D.T. 25% Emulsion	" ..	..	..	25.0	" " " " " "
				%		
<i>Benzene Hexachloride Sprays.</i>						
Gammexane 7 Miscible Oil ..	Benzene Hexachloride ..	..	..	7.0	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
" 50 Dispersible Powder ..	" " " " ..	..	..	6.5	" " " " " "
Gamaphex* ..	" " " " ..	..	..	16.0	" " " " " "
Nik-kof ..	" " " " ..	..	..	5.0	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
Clark's Bug Killer ..	" " " " ..	..	..	4.0	" " " " " "
Lane's B.H.C. 50 Dispersible Powder	" " " " ..	..	..	6.5	Lane's (Sunshine) Pty. Ltd., 18-20 First- avenue, Sunshine
Lane's B.H.C. Miscible Oil ..	" " " " ..	..	..	7.0	" " " " " "
Aphilin* ..	" " " " ..	..	..	16.0	" " " " " "
Agserv Lindane Pest Spray*	" " " " ..	..	..	16.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Agserv Lindane Stock Spray*	" " " " ..	..	..	14.0	" " " " " "
Agserv Lindane Spray*	" " " " ..	..	..	14.0	" " " " " "
Agserv Fogrite No. 7*	" " " " ..	..	..	7.5	" " " " " "
Elliotts Lindawash*	" " " " ..	..	..	3.5	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts Tripoult ..	" " " " ..	..	..	7.5	" " " " " "
Gammexane AP* ..	" " " " ..	..	..	20.0	Imperial Chemical Industries of Aust. and N.Z. Ltd., 408 Latrobe-street, Melbourne
Verindal Ultra* ..	" " " " ..	..	..	80.0	Dangar, Gedye, and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
Yates' Lindane Spray*	" " " " ..	..	..	14.0	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
Mustex Hexon 50 ..	" " " " ..	..	..	6.5	H. Hanna and Co. Pty. Ltd., 114-116 King- street, Melbourne
Mustex Hexon 8 ..	" " " " ..	..	..	8.0	" " " " " "
Gamaval ..	" " " " ..	..	..	7.0	Victor Leggo and Farmers Ltd., 206-214 a'Beckett-street, Melbourne
Kix Harlequin Bug and Aphis Killer ..	" " " " ..	..	..	4.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Hexagreen ..	" " " " ..	..	..	6.0	Horticultural Industries Pty. Ltd., Plummer- street, Port Melbourne
Hortico Bug-Aphis Killer* ..	" " " " ..	..	..	12.0	" " " " " "
Keogh's Lindane Wettable Powder*	" " " " ..	..	..	25.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Mobil Superior Gammaspray*	{ Mineral Oil "	..	..	1.77	{ Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
		..	..	82.0	
<i>D.D.T.—Benzene Hexachloride Sprays.</i>						
				%		
Keogh's Lindane—D.D.T. Paste 6*	{ D.D.T. .. Benzene Hexachloride .. D.D.T. .. Benzene Hexachloride ..	..	..	33.0	{ E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Agserv Fogrite 6*	7.0		{ Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
		..	..	10.0	
		..	..	5.0	
<i>Organic Phosphorus Compounds.</i>						
Hexone ..	Tetraethyl Pyrophosphate ..	..	..	15.0	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
Bluebell Demite ..	" " " " ..	..	..	15.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Vallo H.E.T.P. ..	Hexaethyl Tetraphosphate ..	..	..	95.0	Victor Leggo and Farmers Ltd., 212 a'Beckett- street, Melbourne
Folidust E 605m ..	Dimethyl-para-nitrophenyl-thio-phos- phate	..	..	1.5	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
Phosphone 40 ..	Diethyl— " " " " ..	..	..	40.0	Ramsay and Treganowan Ltd., 469 Latrobe- street, Melbourne
Blue Bell Parathion 25% ..	" " " " " " ..	..	..	25.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Parathion 50% ..	" " " " " " ..	..	..	50.0	" " " " " "
Unity Parathion ..	" " " " " " ..	..	..	25.0	T. E. Butler and Co. Pty. Ltd., 486 Collins- street, Melbourne
Vallo Parathion 40 ..	" " " " " " ..	..	..	40.0	Victor Leggo and Farmers Ltd., 212 a'Beckett- street, Melbourne
Agserv Parathion 40 ..	" " " " " " ..	..	..	40.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne

* Benzene Hexachloride present as Lindane.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Organic Phosphorus Compounds—continued.</i>	%	
Ver-Kem Parathion 50	Diethyl-para-nitrophenyl-thio-phosphate 50.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Mustex Paraspray 5050	" " " " " 50.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
E 605 Folidol Fifty	" " " " " 50.0	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
E 605 Folidol 15% Wettable Powder ..	" " " " " 15.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Parathion 15 W.P.	" " " " " 15.0	" " " " " " " "
Lane's Paradol 50	" " " " " 50.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
George C. Warner's Parathion 50 ..	" " " " " 50.0	Victorian Chemical Co. Pty. Ltd., Appleton-street, Richmond
Code 106 H.I.	Malathion 50.0	" " " " " " " "
Code 106 W.P.	" " " " " 25.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Malathion 50% Emulsifiable Concentrate	" " " " " 50.0	" " " " " " " "
Lane's Malathion W.P. 25	" " " " " 25.0	" " " " " " " "
Lane's Fruit Fly Spray	" " " " " 12.5	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Hortico No. 10 Malathion Garden Spray ..	" " " " " 10.0	" " " " " " " "
Hortico No. 50 Malathion Concentrate ..	" " " " " 50.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
R. & T. Malathion 50	" " " " " 50.0	" " " " " " " "
R. & T. Malathion 25% Dispersible Powder	" " " " " 25.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Malathion 50	" " " " " 50.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Blue Bell Malathion 25 W.P.	" " " " " 25.0	" " " " " " " "
Agserv Malathion W.P.	" " " " " 26.5	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Agserv Malathion E50	" " " " " 50.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Ver-Kem Malathion 50	" " " " " 50.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Shell Malathion Concentrate (50%) ..	" " " " " 50.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Keogh's 50% Malathion Concentrate ..	" " " " " 50.0	H. Hanna and Co. Pty. Ltd., 114-116 King-Melbourne
Kir Malathion Insect Spray	" " " " " 10.0	" " " " " " " "
David 50% Malathion Concentrate ..	" " " " " 50.0	Victor Leggo and Farmers Ltd., 206-214 a'Beckett-street, Melbourne
Mustex Malathion 25	" " " " " 25.0	" " " " " " " "
Mustex Malathion 50	" " " " " 50.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Vallo Malathion 10	" " " " " 10.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
Vallo Malathion 50	" " " " " 50.0	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
Vallo Malathion 25	" " " " " 25.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Elliotts Malathox Wettable Powder ..	" " " " " 25.0	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
Elliotts Malathox	" " " " " 60.0	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
George C. Warner's Malathion 50 ..	" " " " " 50.0	" " " " " " " "
Yates' Malathion E50	" " " " " 50.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Agserv Geigy Diazinon 20H	Diazinon 20.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Agserv Geigy Diazinon 20P	" " " " " 20.0	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
Yates' Geigy Diazinon 20H	" " " " " 20.0	" " " " " " " "
Systox†	Ethyl mercaptoethyl diethyl thio-phosphate 50.0	" " " " " " " "
Meta-systox	Dimethyl ethyl mercaptoethyl thio-phosphate 56.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Sytam†	Schradan‡ 70.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Pestemio 3†	Schradan‡ 55.0	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
Dipterex	Triphosphoric pentadimethylamide .. 11.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Trithion 30% Dispersible Powder ..	Dimethyl trichloro-hydroxyethyl-phosphonate 62.5	" " " " " " " "
	O, o-diethyl-S-p-chlorophenylthio-methyl phosphorodithioate 30.0	" " " " " " " "
<i>Aldrin, Endrin, and Dieldrin.</i>	%	
Elliotts Aldrin 40	Aldrin 40.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Shell Aldrin Concentrate 40%	" " " " " 40.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Endrin Concentrate 20%	Endrin 20.0	" " " " " " " "
R. & T. Endrin 20% Concentrate ..	" " " " " 20.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Elliotts Endrin 20	" " " " " 20.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Lane's Endrin 20 Emulsifiable Concentrate ..	" " " " " 20.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Melbourne

† Not to be used on edible crops.

‡ Bis (dimethylamino) phosphonous anhydride.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).				Wholesale Dealer.
<i>Aldrin, Endrin, and Dieldrin—continued.</i>				%	
Vallo Endrin 20	Endrin			20.0	Victor Leggo and Farmers Ltd., 214 a'Beckett-street, Melbourne
Ver-Kem Endrin No. 20 Miscible Oil	„			20.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Agserv Pestdrin	Dieldrin			20.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Eldrinol 25	„			25.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Vallo Dieldrin 15	„			15.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Shell Dieldrin Concentrate 20%	„			20.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Dieldrin Residual Spray	„			0.5	
David Dieldrin Concentrate ..	„			15.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Mustex Dieldrin 15	„			15.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex Dieldrin 40	„			40.0	
Lane's Dieldrin 15% Emulsifiable Concentrate	„			15.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
George C. Warner's Dieldrin 15%	„			15.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
Elliot's Dieldrin 15	„			15.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Yates' Dieldrin 10	„			10.0	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
<i>P.C.P.B.S., &c.</i>				%	
Murvesco Miticide	p-chlorophenyl-benzene-sulphonate			50.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Hortico Miticide	p-chlorophenyl sulphonate	p-chloro-benzene		50.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Ovamite	„	„		50.0	Timbrol Co., 55 Flemington-road, North Melbourne
Shellamite 50	„	„		50.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Mitran 50 Dispersible Powder ..	„	„		50.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Vallo Stroymite	„	„		50.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Keogh's Miticide	„	„		50.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Agserv Prev.-O-Mite	„	„		50.0	Wm. Haughton and Co. Pty. Ltd., 545 Little Collins-street, Melbourne
Elliot's Mitee	„	„		50.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Erysit Wettable Powder	„	„		80.0	Dangar, Gedy and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
Bluebell Paramite	„	„		50.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Ovalane	„	„		50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Mitox Dispersible Powder	p-chlorobenzyl-p-chlorophenyl sulphide			20.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Mitox	„	„		20.0	Boots Pure Drug Co. (Aust.) Pty. Ltd., 29 Stewart-street, Richmond
Mitox Miscible Oil	„	„		20.0	„
<i>T.D.E.† Sprays.</i>				%	
Blue Bell T.D.E. Emulsion	T.D.E.†			17.5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell T.D.E. Powder	„			25.0	„
Blue Bell T.D.E. Paste	„			40.0	„
Agserv	„			20.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Dilene Mayonnaise Emulsion	„			20.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Dilene 50 Dispersible Powder	„			50.0	„
Ddeath	„			20.0	J. D. Harmsworth and Co. Pty. Ltd., onr. Madden and Molan streets, Ringwood
Vald	„			21.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Vald 50	„			36.0	
Shell Emulsion 20%	„			20.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell 25% Emulsion	„			16.6	
Lane's Sprade W.P. 50	„			50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Sprade Emulsion	„			30.0	
Elliot's Rothane	„			21.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne

† Tetrachlorodiphenylethane; synonymous with dichlorodiphenyl dichloroethane (D.D.D.). The percentage is shown in terms of the para para isomer.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).		Wholesale Dealer.
<i>T.D.E.† Sprays—continued.</i>			
Mobilispray T.D.E.	T.D.E.†	20·0	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
Mustex 30	"	21·0	H. Hanna and Co. Pty. Ltd., 114-116 King street, Melbourne
David 25% Emulsion	"	25·0	David Chemicals Pty. Ltd., Centre-road, Clayton
	D.D.T.	T.D.E.†	
	%	%	
D—Mul	25·0	10·0	H. Fredman Pty. Ltd., High-street, Shepparton
Blue Bell D.D.T.—T.D.E. Powder ..	20·0	13·5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell D.D.T.—T.D.E. Emulsion ..	13·3	6·7	"
Ruplus Emulsion	20·0	10·0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Ruplus Dispersible Powder	25·0	12·5	"
Dua—Vald	20·0	10·0	Victor Leggo and "Farmers" Ltd., 206-214 a'Beckett-street, Melbourne
Shell T.D.E./D.D.T.	20·0	10·0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Agserv Concentrate	20·0	10·0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Lane's Twin Spray	20·0	15·0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	D.D.T.	Malathion.	
	%	%	
<i>D.D.T.—Malathion Sprays.</i>			
Malaprufl	15·0	15·0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Clark's Garden Spray	9·0	9·0	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
Ver-Kem Double Strength Cauli-Spray	25·0	10·0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Dee-Mal	20·0	20·0	Wilcox Moffin Ltd., 34 King-street, Melbourne
Agserv DM-20	20·0	20·0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Maladot	15·0	15·0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
		%	
<i>Dithiocarbamates.</i>			
Blue Bell Di-Rot	Tetramethyl-thiuram-disulphide ..	80·0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Thiram 80	"	80·0	"
Blue Bell T.M.T.D.—Thiram ..	"	80·0	"
Vallo Thiram	"	80·0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Shell Thiram 80	"	80·0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Thiotox 80 Dispersible Powder ..	"	80·0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Fernasan	"	50·0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Hortico T.M.T.D. Fungicide ..	"	80·0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Unity T.M.T.D.	"	80·0	T. E. Butler and Co. Pty. Ltd., 486 Collins-street, Melbourne
Kix Fungus Spray	"	80·0	David Chemicals Pty. Ltd., Centre-road, Clayton
Keogh's Thiram	"	80·0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Agserv Thiram 80	"	80·0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Ver-Kem Thiram 80	"	80·0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Seed Dressing	"	80·0	"
Mustex Thiocide	"	40·0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex Thiocide 80	"	80·0	"
Elliotts Thiram 80	"	80·0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Lantox T.M.T.D. Slurry	"	40·0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lantox T.M.T.D. Dispersible Powder	"	80·0	"
Lane's Thiram 80	"	90·0	"
George C. Warner's Thiram 80 ..	"	80·0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale

† Tetra-chlorodiphenylethane; synonymous with dichlorodiphenyl dichloroethane (D.D.D.). The percentage is shown in terms of the para para isomer.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Dithiocarbamates—continued.</i>		
	%	
Ddeath Thiram 80	Tetramethyl-thiuram-disulphide .. 80.0	J. D. Harmsworth and Co. Pty. Ltd., enr. Madden and Molan-streets, Ringwood
David Thiram 80	" " " " .. 80.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Blue Bell Ziram 80	Zinc dimethyl-dithiocarbamate .. 80.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Vallo Ziram 80	" " " " .. 80.0	Victor Leggo and Farmers Ltd., 212 s'Beckett-street, Melbourne
Zitox 80	" " " " .. 80.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Fulasin Ultra	" " " " .. 90.0	Dangar, Gedye and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
Elliotts Ziram	" " " " .. 48.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts Ziram 80	" " " " .. 80.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Ziram 50	" " " " .. 50.0	" " " " " " " " " " " "
Shell Ziram 80	" " " " .. 80.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Vitospor (ZX80) Ziram	" " " " .. 80.0	" " " " " " " " " " " "
Vitospor (ZX40) Ziram Slurry	" " " " .. 40.0	" " " " " " " " " " " "
Lane's Ziram 90	" " " " .. 90.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Ziram 80	" " " " .. 80.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex Ziram 50 Cream	" " " " .. 50.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
George C. Warner's Ziram Slurry 50	" " " " .. 50.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Ferbam 80	Ferric dimethyl-dithiocarbamate .. 80.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Keogh's Ferbam	" " " " .. 80.0	" " " " " " " " " " " "
Keogh's Zineb	Zinc ethylene-bisdithiocarbamate .. 65.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Agsoerv Zineb 65	" " " " .. 65.0	Victor Leggo and Farmers Ltd., 212 s'Beckett-street, Melbourne
Vallo Zineb	" " " " .. 65.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Zebtox	" " " " .. 65.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Zineb Spray	" " " " .. 65.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Zineb 65	" " " " .. 65.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Hortico Micronised Zineb	" " " " .. 65.0	H. Hanna and Co. Pty. Ltd., 114-116 King-street, Melbourne
Mustex Zineb Spray	" " " " .. 65.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliott's Zineb	" " " " .. 65.0	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
Clark's Zineb	" " " " .. 65.0	Arthur Yates and Co. Pty. Ltd., Burwood-road, Hawthorn
Yates' Zineb	" " " " .. 65.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Dithane Spray	" " " " .. 65.0	" " " " " " " " " " " "
Lane's Dithane M 22	Manganese ethylene bisdithiocarbamate 70.0	" " " " " " " " " " " "
<i>Blowfly Preparations.</i>		
	%	
Shell Defiance Blowfly Oil	{ Dieldrin 0.1 Petroleum Oils 84.1 Coal Tar Products 12.0 Essential Oils 3.0 D.D.T. 5.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Hart's Immunol Blowfly Dressing	{ Boric Acid 5.5 Phenol and Homologues 22.2 Orthodichlorbenzene 5.9 Hydro-carbon Oils 8.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Hart's Killafly 20	{ Dieldrin 2.0 Phenol and Homologues 25.0 Orthodichlorbenzene 55.0	" " " " " " " " " " " "
Hart's Dieldrin 24	{ Dieldrin 24.0	" " " " " " " " " " " "
Hart's Diazinon 32	{ Diazinon 32.0	" " " " " " " " " " " "
Hart's Diazinon 64	{ " " " " .. 64.0	" " " " " " " " " " " "
Fly-O-Leen	{ Dieldrin 0.4 Tar Acids 8.0 Orthodichlorbenzene 20.0 Benzene Hexachloride 0.52	D. G. Officer Pty. Ltd., 90 William-street, Melbourne
Diel-Dro-Leen	{ Dieldrin 15.0	" " " " " " " " " " " "
Ald-Ro-Leen	{ Aldrin 40.0 Dieldrin 0.1 Naphthalene 7.5	" " " " " " " " " " " "
Blo-Fli-Di	{ Sulphur 0.8 Benzol 13.7 Tar Acids 8.4	The Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne

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LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).		Wholesale Dealer.
<i>Weevil Destroyers.</i>			
		%	
Vallo Arsenate of Soda (for treatment of hides)	Arsenic Pentoxide (As ₂ O ₅)	63.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Elliotts Tinbar	Arsenic Trioxide	60.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
<i>Ant Killers.</i>			
		%	
Keogh's Chlordane	Chlordane	80.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Keogh's Dieldrin	Dieldrin	15.0	Houghton and Byrne (Vic.) Pty. Ltd., 20a Nicholson-street, East Brunswick
Chek-Pest	Chlordane	80.0	" " " " " "
Cheksant	"	5.0	" " " " " "
Di-Ant	Dieldrin	20.0	Wilcox Moffin Ltd., 34 King-street, Melbourne
duzKIL	Chlordane	80.0	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Clark's	Dieldrin	12.5	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Hortico 15% Dieldrin Concentrate	Dieldrin	15.0	W. A. Flick and Co. Pty. Ltd., 258 Flinders-lane, Melbourne
Flick-Rid Chlordane	Chlordane	80.0	The "Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Flick-Rid Dieldrin	Dieldrin	15.0	F. H. Faulding and Co. Ltd., 123-125 Lonsdale-street, Melbourne
Diel-Di	"	16.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Antex Spray	"	10.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Kix	"	12.5	D. G. Officer Pty. Ltd., 90 William-street, Melbourne
Shell Dieldrin Concentrate 15%	Dieldrin	15.0	W. K. Burnside Pty. Ltd., 34 Jeffcott-street, Melbourne
The Officer Dieldrin Insect Spray	Dieldrin	0.5	Vermis Destruction Co. Pty. Ltd., 230 Toorak-road, Hartwell
	Pyrethrins	0.1	
	Pyrethrin	0.1	
Burnside's 2 Way Fly Spray	D.D.T.	0.5	
	Dieldrin	0.5	
C.D.V. Argentine Ant Kill	Sodium Arsenite	0.18	
<i>Rat Poisons.</i>			
		%	
Nox	A.N.T.U.	4.0	F. H. Faulding and Co. Ltd., 123 Lonsdale-street, Melbourne
Instanta M109 Rat Paste	"	2.5	W. R. Phillips, 361 Post Office-place, Melbourne
Flickrid	Warfarin	0.025	W. A. Flick and Co. Pty. Ltd., 258 Flinders-lane, Melbourne
Ratrix	"	0.025	Sigma Co. Ltd., 589 Colling-street, Melbourne
Ratsak Prepared Bait	"	0.025	Houghton and Byrne (Vic.) Pty. Ltd., 20a Nicholson-street, East Brunswick
Kilrat	"	0.025	Melbourne City Council, Town Hall, Melbourne
M.C.C. Rat Poison	"	0.025	Wilcox Moffin Ltd., 34 King-street, Melbourne
Rat-Rid	"	0.025	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Rax	"	0.025	J. W. Bailey, 11 Yarra-street, Abbotsford
Fatal Prepared Baits No. 2	"	0.025	G.U.D. Manufacturing Co. Pty. Ltd., 4 The Boulevard, Maribyrnong
Ratopax	Red Squill	49.0	D.H.A. (Laboratories) Pty. Ltd., 335 Spencer-street, Melbourne
Rat Death	Phosphorus	1.84	Pitt's Wheat Co., 228 Moorabool-street, Geelong
Pitt's Poisoned Wheat	Strychnine	0.33	J. W. Bailey, 11 Yarra-street, Abbotsford
Fatal Prepared Baits No. 1	Thallium Sulphate	2.0	
<i>Sheep and Cattle Dips (Arsenical).</i>			
Cooper's Powder	Conforms with standard (Vic. Dept. of Agric.)		New Zealand Loan and Mercantile Agency Co. Ltd., 538 Collins-street, Melbourne
Cooper's Liquid Arsenical	"	"	"
Little's Powder (Standard)	"	"	Wilcox, Moffin Ltd., 34 King-street, Melbourne
Quibell's Powder	"	"	Dalgety and Co. Ltd., 461-471 Bourke-street, Melbourne
Quibell's Liquid Arsenical	"	"	"
Sickle Powder	"	"	Commonwealth Fertilizers and Chemicals Ltd., 65 William-street, Melbourne
Vallo Standard Powder	"	"	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Osmond's Viper Powder	"	"	Osmond and Sons (Aust.) Pty. Ltd., 35 William-street, Melbourne
Osmond's Forty-one Cattle Dip	"	"	J. H. Rudd and Co. Pty. Ltd., 258 North-road, Huntingdale
Kleanflok	"	"	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts 128 Liquid	"	"	"
Elliotts Liquid Arsenical Cattle Dip	"	"	D. G. Officer Pty. Ltd., 90 William-street, Melbourne
Lan-O-Leen	"	"	Goldsbrough, Mort and Co. Ltd., 526 Bourke-street, Melbourne
Young's Jason Liquid Dip	"	"	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Grazcos Liqui-Dip	"	"	

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Miscellaneous Sheep and Cattle Dips.</i>	%	
Cooper's Quick Acting Powder	Arsenic (As ₂ O ₃) 22.00	New Zealand Loan and Mercantile Agency Co. Ltd., 538 Collins-street, Melbourne
Cooper's Gamatox	Rotenone 0.14	
Cooper's Cooperdiel	Benzene Hexachloride 6.0	
Cooper's Dieldrin Cattle Spray	Dieldrin 50.0	
Cooper's New Cooperdiel	Dieldrin 20.0	
Cooper's Diazadip	Phenyl Mercuric Acetate 4.0	" " " " " "
Cooper's Spray Race Fluid	Diazinon 20.0	
Cooper's Lime Sulphur Dip	Dieldrin 20.0	
Cooper's D.D. Tox	Polysulphide Sulphur 20.0	
	D.D.T. 50.0	
Hart's Immunol Super	Arsenic (As ₂ O ₃) 29.8	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Hart's Immunol Jetol	Cresol 40.7	
Super X	Oleo-resin (Derris) 1.0	
Hart's Immunol Aldrin Liquid Sheep Dip	Benzene Hexachloride 10.0	
Hart's Immunol Dieldrin Liquid Sheep Dip	Benzene Hexachloride 10.0	
Kymac	Aldrin 40.0	Younghusband Ltd., 94 King-street, Melbourne
	Phenols 30.0	
	Dieldrin 30.0	
	Phenols 30.0	
	Cresols 57.00	
Little's New Dieldrin	Rotenone and allied substances 1.33	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
Little's Poisonous Liquid	Phenyl mercuric acetate 4.0	
	Dieldrin 50.0	
Little's Supreme Rapid-Acting Powder	Arsenic (As ₂ O ₃) 12.20	
Little's Numex	Tar Acids 13.00	
Wilmo Diazinon Sheep Dip	Arsenic (As ₂ O ₃) 19.50	" " " " " "
Wilmo Dieldrin Powder Sheep Dip	Rotenone 0.14	
Wilmo Spraydiel Spray Race Fluid	Benzene Hexachloride 6.0	
Aldi	Diazinon 20.0	
Dielspray	Dieldrin 50.0	
Vallo Fluid	Phenyl mercuric acetate 4.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
	Dieldrin 20.0	
	Aldrin 40.0	
	Dieldrin 15.0	
	Tar Acids 18.00	
Vallo Dual Purpose Powder	Arsenic (As ₂ O ₃) 21.00	Osmond and Sons (Aust.) Pty. Ltd., 35 William-street, Melbourne
Buzacott D-Dip	Rotenone and allied substances 0.70	
Osmond's Ivory Fluid	Dieldrin 20.0	
	Tar Acids 18.00	
Osmond's Viper Liquid Dip	D.D.T. 20.0	" " " " " "
	Benzene Hexachloride 0.99	
	Chlorbenzenes 62.25	
	Cresylic Acid 7.0	
Osmond's Viper Powder Rapid Result Dip	Arsenic (As ₂ O ₃) 21.0	
Osmond's Vitix Cattle Dip	Derris Oleo-resin 0.7	" " " " " "
	D.D.T. 25.0	
	Benzene Hexachloride 1.5	
	Cresylic Acid 5.0	
Osmond's Vipald	Aldrin 20.0	
Osmond's Vitox Cattle Dip and Spray	Toxaphene 65.0	Dalgety and Co. Ltd., 461-471 Bourke-street, Melbourne
Osmond's Viper Liquid Mite Dip	Polysulphide Sulphur 20.0	
Quibell's Special Powder	Arsenic (As ₂ O ₃) 21.80	
	Rotenone 0.14	
Quibell's Dieldrin Sheep Dip	Dieldrin 50.0	
Quibell's Gamma	Benzene Hexachloride 6.0	" " " " " "
Quibell's Diazinon Sheep Dip	Diazinon 20.0	
Quibell's Dieldrin Sheep Dip Instant Mixing	Dieldrin 50.0	
Quibell's Spray Race Fluid	Phenyl Mercuric Acetate 4.0	
	Dieldrin 20.0	
Allkon Special	Arsenic (As ₂ O ₃) 29.8	Allkon Pty. Ltd., 34 Clarendon-street, South Melbourne
	Cresol 40.7	
Elliotts 67 Liquid Dip	Derris Oleo-resin 1.0	
	Polysulphide Sulphur 20.00	
Elliotts Tridip	Aldrin 20.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts Toxaphene Spray and Dip	Toxaphene 65.0	
	Phenols 25.0	
Young's Red Label Paste	Tuba-toxins and allied substances 15.0	
Young's Red Label Liquid	Arsenic (As ₂ O ₃) 13.5	
Young's M.C.D. Powder	Sodium Arsenite 20.0	Strachan and Co. Ltd., Geelong
	Phenols 25.0	
	Rotenone 0.42	
	Benzene Hexachloride 1.6	
Sickle Gamalene	Copper Sulphate (Cryst) 40.0	
Sickle Rotalene Liquid	Benzene Hexachloride 3.5	Commonwealth Fertilizers and Chemicals Ltd., 65 William-street, Melbourne
	Rotenone and allied substances 8.0	
Sickle Brand Double Action	Arsenic (As ₂ O ₃) 21.0	
	Rotenone and allied substances 0.7	
Sickle Brand Paradip Liquid Arsenical Sheep Dip	Arsenic (As ₂ O ₃) 37.8	
Sickle Brand Aldrene Liquid Sheep Dip	Rotenone and allied substances 1.28	" " " " " "
Sickle Brand Aljet	Aldrin 32.0	
Sickle Brand Diszajet	Dieldrin 40.0	
	Diazinon 51.2	

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Miscellaneous Sheep and Cattle Dips.</i> —continued.		
	%	
Grazcos Gammasol	Benzene Hexachloride 3.5	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Grazcos Arsenical Powder ..	{ Arsenic (As ₂ O ₃) 21.0	{ " " " " " " " "
	{ Rotenone and allied substances .. 0.7	
Grazcos Aldwash Aldrin Dip ..	{ Aldrin 25.0	
Grazcos Aldrin 40% Jetting Fluid ..	{ " 40.0	
Grazcos Diazinon Jetting Fluid ..	{ Diazinon 20.0	
Grazcos Dieldrin Jetting Fluid ..	{ Dieldrin 15.0	{ " " " " " " " "
I-Diel Sheep Dip	{ Dieldrin 40.0	
Sayers Dieldrin Jetting Fluid ..	" 15.0	Imperial Chemical Industries of Aust. and N.Z. Ltd., 408 Latrobe-street, Melbourne
Sayers Aldrin Dip	Aldrin 30.0	Victorin Producers' Co-operative Co. Ltd., 578-584 Flinders-lane, Melbourne
United Liquid Arsenic-Cresol ..	{ Arsenic (As ₂ O ₃) 40.0	{ The Australian Estates Co. Ltd., 114 William-street, Melbourne
	{ Cresylic Acid 12.0	
United Aldrin Sheep Dip	{ Aldrin 50.0	{ Goldsbrough, Mort and Co. Ltd., 526 Bourke-street, Melbourne
Goldsbrough Special Derris Sheep Dipping Powder ..	{ Arsenious Oxide (As ₂ O ₃) 21.0	
	{ Rotenone and allied substances .. 0.7	{ " " " " " " " "
	{ Benzene hexachloride 4.0	
S.D.S. Colloidal Sheep Dip and Jetting Fluid ..	{ Dieldrin 10.0	
	{ Tar Acids 7.0	
	{ Arsenious Oxide (As ₂ O ₃) 3.2	{ D. G. Officer Pty. Ltd., 90 William-street, Melbourne
Hexagam	{ Benzene Hexachloride 3.5	
Verm-O-Leen	{ Benzene Hexachloride 10.0	{ " " " " " " " "
Lan-O-Leen containing Derris ..	{ Arsenic (As ₂ O ₃) 25.0	
	{ Derris Oleo-Resin 1.0	{ " " " " " " " "
Col-Ald-Rin	{ Aldrin 60.0	
Nightingale Aldrin 40	Aldrin 40.0	The Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
David Aldrin Dip	{ Aldrin 40.0	{ David Chemicals Pty. Ltd., Centre-road, Clayton
	{ Chloroxylenol 10.0	
	{ D.D.T. 16.0	{ W. K. Burnside Pty. Ltd., 34-44 Jeffcott-street, Melbourne
Gardovis Sheep Dip	{ Eucalyptus oil 10.0	
	{ Orthodichlorobenzene 10.0	{ Howard Chemical Co., 546 Racecourse-road, Newmarket
Pesdip	{ Dieldrin 15.0	
	{ Hydroxy Toluene 7.5	{ " " " " " " " "
	{ Rotenone and allied substances .. 8.0	
Itch-Dip	{ Dieldrin 10.0	{ Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
	{ Hydroxy Toluene 5.0	
Agserv Aldrin Dip	Aldrin 20.0	
<i>Weed Destroyers (Arsenical).</i>		
	%	
Clark's Weed Poison†	Arsenic (As) 56.7	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Weednox†	" " 56.6	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Bell's Dandy Blue	" " 55.0	Rocke Tompsitt and Co. Ltd., 292 Flinders-street, Melbourne
Globe	" " 59.0	" " " " " " " "
Globe Weed and Scrub†	" " 21.0	" " " " " " " "
Vallo Weed, Scrub and Tree ..	" " 60.6	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Arzoen Weedkiller†	" " 56.7	" " " " " " " "
Vallo Liquid Pentoxide†	" " 32.9	" " " " " " " "
Hart's Concentrated Liquid Arsenio† ..	" " 67.4	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Hart's Killaweed†	" " 30.0	" " " " " " " "
Hart's Killaferr Bracken Spray ..	" " 30.0	" " " " " " " "
Elliotts Voskin	" " 54.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Blue Bell Sodium Arsenite†	" " 65.4	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Weed-O-Leen†	" " 64.3	D. G. Officer Pty. Ltd., 90 William-street, Melbourne
Cooper's Weedicide†	" " 42.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Kix Weed Poison†	" " 56.7	David Chemicals Pty. Ltd., Centre-road, Clayton
Sanico Weed Killer	" " 42.0	Industrial Sanitation Co., 1071 High-street, Armadale
Nosco Liquid Weedkiller†	" " 36.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Domarseno†	" " 30.0	Dominant Chemicals Pty. Ltd., Wickham-road, Moorabbin
Cooper's New Weedicide†	" " 34.0	New Zealand Loan and Mercantile Agency Coy. Ltd., 538 Collins-street, Melbourne

† In Liquid form (percentage weight in volume).

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Weed Destroyers (Chlorates).</i>		
	%	
Atlacide C.A. Powder	Sodium Chlorate 50.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Elliotts Vertan	" " " " " 98.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Nosco Sodium Chlorate	" " " " " 100.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Chloracide	" " " " " 99.5	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
<i>Weed Destroyers (Hormone Type)</i>		
<i>M.C.P.A.</i>		
	%	
Methoxone 30	2-methyl-4-chloro-phenoxyacetic acid 27.4	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Shell Weed Killer "M"	" " " " " 30.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Tuloxone 30	" " " " " 21.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
MX-30	" " " " " 27.0	Agricultural and Domestic Sprays, 36 Menin-road, Nunawading
Phenoxyline Plus	" " " " " 25.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Nocweed M.C.P.A.	" " " " " 27.4	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Hart's M.C.P.A.	" " " " " 27.4	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
<i>2, 4-D Esters.</i>		
	%	
Weedone Lawn Weed Killer	2, 4-dichlorophenoxyacetic acid .. 35.7	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Weedone Concentrate 57	" " " " " 35.7	" " " " " " "
Weedone Lo-Vol Concentrate 57	" " " " " 35.7	" " " " " " "
Wild's 2, 4-D Esters	" " " " " 40.0	H. B. S. Wild and Co. Pty. Ltd., 22 North-road, Brighton
Grazcos 2, 4-D Ester	" " " " " 40.0	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Pixweed Ester	" " " " " 35.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Di-Weed 40	" " " " " 40.0	Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Di-Weed 80	" " " " " 80.0	" " " " " " "
Ddeath Esters Weedkiller	" " " " " 45.0	J. D. Harmsworth " and Co. Pty. Ltd., cnr. Madden and Molan streets, Ringwood
Estex 40	" " " " " 40.0	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
Estex 80	" " " " " 80.0	" " " " " " "
Esternox 80	" " " " " 80.0	" " " " " " "
Estex L.V. 40	" " " " " 40.0	" " " " " " "
Elliotts 2, 4-Destox	" " " " " 40.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts 2, 4-Destox 80	" " " " " 80.0	" " " " " " "
Shell Weedkiller E	" " " " " 40.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Weedkiller C	" " " " " 36.4	" " " " " " "
Nocweed E	" " " " " 50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Nocweed E 40	" " " " " 40.0	" " " " " " "
Nocweed E 50	" " " " " 50.0	" " " " " " "
Nocweed E 80	" " " " " 80.0	" " " " " " "
Nocweed Cumbungi Oil	" " " " " 22.2	" " " " " " "
Estone 80	" " " " " 80.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Cumboxone	" " " " " 35.3	" " " " " " "
Vallo Ethyl Ester 40	" " " " " 40.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Mobil Hormone Weedicide 980	" " " " " 35.3	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
Banweed Ester 80	" " " " " 80.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Estar 80	" " " " " 80.0	Agricultural and Domestic Sprays, 36 Menin-road, Nunawading
Gibson Hormone Ester Weedicide (40%)	" " " " " 40.0	Gibson-Kelite Chemicals Pty. Ltd., Reserve-road, Cheltenham
Gibson Hormone Ester Weedicide (80%)	" " " " " 80.0	" " " " " " "
Kleenland Ester	" " " " " 40.0	Wheat and Woolgrower's Co-operative Ltd., 28 Collins-street, Melbourne
David Ester Weedkiller	" " " " " 40.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Nufarm Estericide	" " " " " 80.0	Nufarm Rural Products Pty. Ltd., 142 Sydney-road, Coburg
Killester	" " " " " 80.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Killagrass	" " " " " 80.0	" " " " " " "
Yates' Lawn Weed Killer	" " " " " 35.7	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Weed Destroyers (Hormone Type)</i> —continued.		
<i>2, 4-D Metallic Salts.</i>		%
Tredmar No. 1 Weed Killer	2, 4-dichlorophenoxyacetic acid .. 82.0	Tredmar Chemical Products, 159 Dandenong-road, Windsor
Nocweed Sodium 2, 4-D	" " " " .. 83.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Hart's 2, 4-D	" " " " .. 80.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
2, 4-D Sodium Salt	" " " " .. 83.0	Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
2, 4-Di-Weed	" " " " .. 70.0	" " " " " " " " " " " "
Wilmex	" " " " .. 84.5	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
Vallo 2, 4-D Selective Weed Killer ..	" " " " .. 78.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Chloroxone	" " " " .. 82.5	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
S-80	" " " " .. 80.0	Agricultural and Domestic Sprays, 36 Menin-road, Nunawading
Kill-Nox 2, 4-D Weedicide ..	" " " " .. 60.0	Austral Chemical Co. Pty. Ltd., 171 Bouverie-street, Carlton
<i>2, 4-D Amine Salts.</i>		%
Vallo Amine Liquid Weedkiller ..	2, 4-dichlorophenoxyacetic acid .. 50.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Hormex	" " " " .. 50.0	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
Aminox 50	" " " " .. 50.0	Dominant Chemicals Pty. Ltd., Wickham-road, Moorabbin
Dormone	" " " " .. 50.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Banweed Amine 50	" " " " .. 50.0	J. D. Harmsworth and Co. Pty. Ltd., Cnr. Madden and Molan streets, Ringwood
Ddeath Amine Weedkiller	" " " " .. 50.0	Paykel Bros. (Aust.) Pty. Ltd., 242 Hoddle-street, Abbotsford
Rid-Weed No. 6	" " " " .. 50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Nocweed A	" " " " .. 50.0	" " " " " " " " " " " "
Nocweed A 40	" " " " .. 40.0	" " " " " " " " " " " "
Nocweed A 50	" " " " .. 50.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Weedkiller D	" " " " .. 50.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Killamine	" " " " .. 40.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliot's 2, 4-Ditox	" " " " .. 40.0	The Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Di-Weed 50	" " " " .. 50.0	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Clark's Weed Killer	" " " " .. 10.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Amoxone	" " " " .. 50.0	H. B. S. Wild and Co. Pty. Ltd., 22 North-road, Brighton
Wild's 2, 4-D Amine	" " " " .. 50.0	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Grazcos 2, 4-D Amine	" " " " .. 40.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Pixweed 10 per cent.	" " " " .. 10.0	" " " " " " " " " " " "
Pixweed 50% Concentrate	" " " " .. 50.0	Agricultural and Domestic Sprays, 36 Menin-road, Nunawading
Amyne-50	" " " " .. 50.0	Wheat and Woolgrowers Co-operative Ltd., 28 Collins-street, Melbourne
Kleenland Amine Concentrate ..	" " " " .. 50.0	Gibson-Kelite Chemicals Pty. Ltd., Reserve-road, Cheltenham
Gibson Hormone Amine Weedicide ..	" " " " .. 50.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Kix 50% 2, 4-D Weedkiller	" " " " .. 50.0	" " " " " " " " " " " "
Kix Weedkiller	" " " " .. 16.7	" " " " " " " " " " " "
David Amine Weedkiller	" " " " .. 50.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Weedar 64	" " " " .. 40.0	" " " " " " " " " " " "
Weedar 77	" " " " .. 48.4	Nufarm Rural Products Pty. Ltd., 142 Sydney-road, Coburg
Nufarm Amicide	" " " " .. 50.0	" " " " " " " " " " " "
<i>2, 4, 5-T. Esters.</i>		%
Nocweed 2, 4, 5-T	2, 4, 5-trichlorophenoxyacetic acid .. 36.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Killaberry 1600	" " " " .. 75.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Weedone Special 2, 4, 5-T	" " " " .. 36.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Weedone Blackberry Killer	" " " " .. 36.0	" " " " " " " " " " " "
Ritex	" " " " .. 104.0	Wilcox Mofflin Ltd., 34 King-street, Melbourne
Super Trimex	" " " " .. 40.0	" " " " " " " " " " " "
Shell Weedkiller "B"	" " " " .. 30.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Weed Destroyers (Hormone Type)</i> —continued.		
2, 4, 5-T Esters.		
	%	
T-Death Blackberry Killer	2, 4, 5-Trichlorophenoxyacetic acid .. 40.0	J. D. Harmsworth and Co. Pty. Ltd., Cnr. Madden and Molan streets, Ringwood
Rid-Weed No. 5	" " " " .. 40.0	Paykel Bros. (Aust.) Pty. Ltd., 242 Hoddle-street, Abbotsford
Butoxone 80	" " " " .. 80.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Vallo Blackberry Weed Killer 80 ..	" " " " .. 80.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Wild's (2, 4, 5-T) Scrub-Killer ..	" " " " .. 80.0	H.B.S. Wild and Co. Pty. Ltd., 22 North-road, Brighton
Hortico Blackberry Killer	" " " " .. 40.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
T-80	" " " " .. 80.0	Agricultural and Domestic Sprays, 36 Menin-road, Nunawading
Di-Weed Blackberry Hormone 2, 4, 5-T Concentrate	" " " " .. 80.0	The Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Grazcos, 2, 4, 5-T	" " " " .. 80.0	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Elliotts Triestyl 80	" " " " .. 80.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
David Blackberry and Brush Killer ..	" " " " .. 80.0	David Chemicals Pty. Ltd., Centre-road, Clayton
Yates' Clover Killer	" " " " .. 35.7	Arthur Yates and Co. Pty. Ltd., 36-38 Burwood-road, Hawthorn
Yates' Blackberry Killer	" " " " .. 36.0	" " " " " " " " " " " "
Nufarm 5-T	" " " " .. 80.0	Nufarm Rural Products Pty. Ltd., 142 Sydney-road, Coburg
2, 4, 5-T. Amine Salts.		
	%	
Keogh's Brush and Blackberry Killer	2, 4, 5-Trichlorophenoxyacetic acid .. 25.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
George C. Warner's Creeping Oxalis and Clover Killer	" " " " .. 20.0	A. C. Hatriek Pty. Ltd., Centre-road, Springvale
2, 4-D and 2, 4, 5-T (Mixed) Esters.		
	%	
Killaberry 800	2, 4, 5-Trichlorophenoxyacetic acid .. 37.0	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
Trimex	2, 4-Dichlorophenoxyacetic acid .. 37.0	
	2, 4, 5-Trichlorophenoxyacetic acid .. 20.0	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
	2, 4-Dichlorophenoxyacetic acid .. 20.0	
Di-Weed 5 T Concentrate	2, 4, 5-Trichlorophenoxyacetic acid .. 37.0	Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
	2, 4-Dichlorophenoxyacetic acid .. 37.0	
Ddeath Blackberry Killer	2, 4, 5-Trichlorophenoxyacetic acid .. 20.0	J. D. Harmsworth and Co. Pty. Ltd., Cnr. Madden and Molan streets, Ringwood
	2, 4-Dichlorophenoxyacetic acid .. 20.0	
Elliotts 2, 4, 5-Tritox	2, 4, 5-Trichlorophenoxyacetic acid .. 20.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
	2, 4-Dichlorophenoxyacetic acid .. 20.0	
Nocweed Brushkiller	2, 4, 5-Trichlorophenoxyacetic acid .. 20.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	2, 4-Dichlorophenoxyacetic acid .. 20.0	
Nocweed Brushkiller 80	2, 4, 5-Trichlorophenoxyacetic acid .. 32.8	" " " " " " " "
	2, 4-Dichlorophenoxyacetic acid .. 35.6	" " " " " " " "
Nocweed Gorsekiller	2, 4, 5-Trichlorophenoxyacetic acid .. 30.0	" " " " " " " "
	2, 4-Dichlorophenoxyacetic acid .. 10.0	" " " " " " " "
Weedone Brushkiller 32	2, 4, 5-Trichlorophenoxyacetic acid .. 8.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
	2, 4-Dichlorophenoxyacetic acid .. 16.0	
Kill-Nox 2, 4, 5-T	2, 4, 5-Trichlorophenoxyacetic acid .. 20.0	Austral Chemical Co. Pty. Ltd., 171 Bouverie-street, Carlton
	2, 4-Dichlorophenoxyacetic acid .. 20.0	
<i>Weed Destroyers (Miscellaneous).</i>		
	%	
A.D.S. Grasskiller	Sodium Trichloroacetate 92.0	Agricultural and Domestic Sprays, 36 Menin-road, Nunawading
Hortico T.C.A.	" " " " .. 90.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Agserv T.C.A.	" " " " .. 94.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Keogh's T.C.A. Grass and Weed Killer	" " " " .. 90.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Nocweed T.C.A.	" " " " .. 97.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Rid-Weed No. 4	" " " " .. 97.0	Paykel Bros. (Aust.) Pty. Ltd., 242 Hoddle-street, Abbotsford
Elliotts T.C.A.	" " " " .. 90.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Di-Weed T.C.A.	" " " " .. 95.0	Nightingale Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Gramex	" " " " .. 90.0	Wilcox, Mofflin Ltd., 34 King-street, Melbourne
Caval—90	" " " " .. 90.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
<i>Rabbit Fumigants.</i>		
Calcynide	Cyanogen (CN) 23.7	Dalgaty and Co. Ltd., 1 Malop-street, Geelong
Fumoflake	" 21.0	Houghton and Byrne (Vic.) Pty. Ltd., 20A Nicholson-street, East Brunswick
Calcid Briquettes	" 50.0	" " "
Calcyan	" 24.0	" " "
Liquid HCN	" 94.0	" " "
Larvacide	Chloropierin 99.0	" " "
Larvamps	" 99.0	" " "
Fumicide	" 99.0	Wilcox Moffin Ltd., 34 King-street, Melbourne
Hart's Smokogas	Liberates hydrogen sulphide and carbon monoxide	Hart and Co. Pty. Ltd., 38 Clarendon-street, South Melbourne
<i>MISCELLANEOUS.</i>		
Baytan	Organically combined mercury 3.0	Henry H. York and Co. Pty. Ltd., 573 Lonsdale-street, Melbourne
Drisan	" 1.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Clerit Double Strength	" 6.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
P.M.A.S.	" 5.9	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Murfixtan	" 0.8	" " "
Phenyl Mercury Fixtan Spray	" 3.75	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Aretan	" 3.0	James Downey, 34 King-street, Melbourne
Elliotts Mercusol	Phenyl mercuric acetate 10.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts Mercane	" 10.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Keotized Mercury E	" 2.5	Victor Leggo and Farmers Ltd., 206-214 a'Beckett-street, Melbourne
Vallo P.M.C. Paste	Phenyl mercuric chloride 20.0	T. E. Butler and Co. Pty. Ltd., 486 Collins-street, Melbourne
Unity P.M.C. (Venturicide)	" 2.5	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Phenyl Mercuric Chloride Paste	" 20.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliott's Spotspray	" 40.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's P.M.C. Black Spot Spray	" 40.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
R. & T. P.M.C. Paste	" 20.0	Wilcox Moffin Ltd., 34 King-street, Melbourne
Wilmo P.M.C. Agserv No-Spot	" 40.0	Wm. Haughton and Co. Ltd., 545 Little Collins-street, Melbourne
Mertan	Phenyl mercury nitrate 7.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Unity Mercurated D.D.T.	Phenyl mercuric chloride 2.5	T. E. Butler and Co. Pty. Ltd., 486 Collins-street, Melbourne
Keogh's 4% Calomel Dust	D.D.T. 20.0	E.P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Keogh's Calo Chlor	Mercurous chloride 50.0	" " "
Gibson Calo-Chlor (One to One)	Mercuric chloride 50.0	" " "
Gibson Calo-Chlor (Two to One)	Mercurous chloride 37.5	Gibson-Kelite Chemicals Pty. Ltd., Reserve-road, Cheltenham
Flit 406 Plant Fungicide	Mercuric chloride 37.5	" " "
Flit Fungicide 406	Mercurous chloride 50.0	" " "
Orthocide 50	Mercuric chloride 25.0	" " "
Captan 50	N-trichloromethylthio-tetrahydro-phthalimide 50.0	Atlantic Union Oil Co. Pty. Ltd., 360 Lonsdale-street, Melbourne
R. & T. Captan Dust	" 50.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Blue Bell Captan S.R. 406	" 50.0	Victor Leggo and Farmers Ltd., 206-214 a'Beckett-street, Melbourne
Ver-Kem Captan 50	" 50.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Mycotox	" 6.5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Sickle or I.C.I. Formalin	" 50.0	Vermont Agricultural Chemicals Pty. Ltd., Rocks-road, Vermont
D.H.A. Formalin	" 25.0	H. Fredman Pty. Ltd., High-street, Shepparton
Faulding's Formalin	Zineb 40.0	Commonwealth Fertilizers and Chemicals Ltd., 65 William-street, Melbourne
Vallo Formalin	Formaldehyde 38.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Lane's Formalin	" 38.0	F. H. Faulding and Co. Ltd., 123-125 Lonsdale-street, Melbourne
Nemeject	" 40.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Nemafume	Ethylene dibromide 12.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	" 27.1	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
		Victor Leggo and Farmers Ltd., 214 a'Beckett-street, Melbourne

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
MISCELLANEOUS—continued.		
Lane's E.D.B. Soil Fumigant ..	Ethylene dibromide .. 12.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Nemakil 15 ..	" " .. 15.0	Wilcox Mofflin Ltd., 34 King-street, Melbourne
Fumicide Soil Fumigant ..	" " .. 10.0	" " " " " "
Shell Soil Fumigant E.D.B. (12½%) ..	Chloropicrin .. 90.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
	Ethylene dibromide .. 23.6	
Shell Soil Fumigant E.D.B. (15%) ..	" " .. 27.6	" " " " " "
Shell D.D. Soil Fumigant ..	Chlorinated hydrocarbons .. 100.0	" " " " " "
Elliotts Tartar Emetic ..	Potassium antimonyl tartrate .. 100.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Hortico Tartar Emetic ..	" " " .. 99.0	Horticultural Industries Pty. Ltd., Plummer-street, Port Melbourne
Lane's Tartar Emetic ..	" " " .. 95.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Cooper's Louse Powder ..	Benzene hexachloride .. 0.6	New Zealand Loan and Mercantile Agency Co. Ltd., 538 Collins-street, Melbourne
Gama-Tik Insect Powder ..	" " .. 0.6	" " " " " "
Gammawash ..	" " .. 3.5	Grazcos Co-operative Ltd., 90 William-street, Melbourne
Gammexane Perch Paint* ..	" " .. 7.0	Imperial Chemical Industries of Aust. and N.Z. Ltd., 408 Latrobe-street, Melbourne
Plane Cricket Bait ..	" " .. 6.5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Flick-Rid Insect Powder ..	" " .. 2.5	W. A. Flick and Co. Pty. Ltd., 258 Flinders-lane, Melbourne
Clark's Soil Insecticide ..	" " .. 0.5	Clark, King and Co. Pty. Ltd., 44 King-street, Melbourne
Taylor's No. 13 Insect Powder ..	" " .. 0.1	British Paints (Aust.) Pty. Ltd., 10 Coora-road, Huntingdale
Jen's Louse Powder* ..	D.D.T. .. 5.0	Jen's Vet. Products, 25 Bank-place, Melbourne
	Benzene hexachloride .. 0.6	
Shirian A.G. ..	Tobacco dust .. 49.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
	Salicylanilide .. 25.0	
Shirian 100 per cent. ..	" " .. 100.0	" " " " " "
Shirian W.S. ..	Sodium salicylanilide .. 98.0	" " " " " "
Vallo Sali-Cide ..	" " .. 80.0	Victor Leggo and Farmers Ltd., 212 a'Beckett-street, Melbourne
Elliotts Toxaphene for Grasshopper Control ..	Toxaphene .. 65.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Ver-Kem Dairy Cattle Spray ..	Methoxychlor .. 50.0	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Marlate 50 ..	" " .. 50.0	" " " " " "
Ver-Kem Beetle-O ..	" " .. 44.0	" " " " " "
Ver-Kem Marlate 2-MR ..	Methoxychlor .. 24.0	" " " " " "
	Methylated naphthalenes .. 73.0	
	Potash soap .. 30.0	
	Citronella .. 1.4	
Clensel Insecticide ..	Ammonia .. 2.3	Clensel Products Pty. Ltd., 55 Flemington-road, North Melbourne
Gilboform ..	Dinitro-ortho-cresol .. 50.0	Dangar, Gedye and Malloch (Vic.) Pty. Ltd., Stubbs-street, Flemington
Blue Bell Karathane ..	Dinitro (1-methyl heptyl) phenyl crotonate .. 22.5	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Lane's Karathane W.P. 25 ..	" " " " .. 25.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Clark's Mil-Du-Kil ..	" " " " .. 12.5	Clark King and Co. Pty. Ltd., 44 King-street, Melbourne
Clark's Rose Spray ..	" " " " .. 5.5	" " " " " "
D-sp-ite ..	Zineb .. 50.7	H. Fredman Pty. Ltd., 183-187 High-street, Shepparton
	D.D.T. .. 25.0	
D-sp-ite Wettable Powder ..	T.D.E.† .. 10.0	" " " " " "
	Kelthane† .. 5.0	
Mobilspray M.M.A. ..	D.D.T. .. 25.0	Vacuum Oil Co. Pty. Ltd., 29 Market-street, Melbourne
	T.D.E.† .. 12.5	
Wog-geta ..	Kelthane† .. 5.0	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
	T.D.E.† .. 15.3	
Coversan ..	Malathion .. 15.3	" " " " " "
Cerenox ..	D.D.T. .. 12.5	" " " " " "
Gibson Puraturf 177 ..	T.D.E.† .. 10.0	Gibson-Kelite Chemicals Pty. Ltd., Reserve-road, Cheltenham
P.A.C.A. Fungicide ..	Tetrachloro-para-benzoquinone .. 98.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Grene Deth ..	Quinoxime benzoyl hydrazone .. 10.0	E. H. Page, 1264 High-street, Malvern
	Phenyl-amino-cadmium dilactate .. 20.0	
	Nicotine .. 0.58	
	Sulphur .. 18.19	
Tuberol ..	Paradichlorobenzene .. 2.27	H. C. Pannifex and Co. Pty. Ltd., 53-57 Munster-terrace, North Melbourne
	Essential Oil Res. .. 4.22	
Nox-All Vermin Powder ..	Naphthalene .. 2.26	Sigma Co. Ltd., 599 Collins-street, Melbourne
	Stearoptenes and oleoptenes .. 70.0	
	Benzene hexachloride .. 0.1	
	Dibutyl phthalate .. 5.0	

* Benzene Hexachloride present as Lindane. † Tetrachlorodiphenylethane; synonymous with dichlorodiphenyl dichloroethane (D.D.D.).
The percentage shown is in terms of the para para isomer. ‡ (Bis-p-chlorophenyl) trichloroethanol.

LIST OF FUNGICIDES, ETC., ETC.—continued.

Distinguishing Name of Fungicide and/or Insecticide.	Percentage of Declared Active Constituent(s).	Wholesale Dealer.
MISCELLANEOUS—continued.		
Witlo	Paradichlorobenzene .. 3.0 Ethyl mercury phosphate .. 0.5 Potassium permanganate .. 3.0 Copper (Cu) .. 12.0 Phenols .. 5.5 D.D.T. .. 8.75	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Lanosan Complete Tomato Spray	Copper (Cu) .. 3.75 Sulphur .. 50.0 Ammonium molybdate .. 0.5	" " " " " "
George C. Warner's Chloro I.P.C.	Chloro Isopropyl-Phenyl Carbamate .. 60.0	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
Keogh's Chloro I.P.C.	" " " " " " .. 50.0	E. P. Keogh Pty. Ltd., 402 Swanston-street, Melbourne
Ver-Kem Manzin	Maneb .. 70.0 Zineb .. 0.12 D.D.T. .. 15.64	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Complete Tomato Spray	Maneb .. 25.50 Zineb .. 0.12 Sulphur .. 49.50	" " " " " "
Mustex Thiosan	Tetra methyl thiuram-disulphide .. 50.0 Sodium molybdate .. 50.0 D.D.T. .. 8.75	H. Hanna and Co. Pty. Ltd., 114-116 King street, Melbourne
Mustex All-Purpose Tomato Spray	Sulphur .. 50.00 Copper (Cu) .. 7.50 Molybdenum (Mo) .. 0.5 D.D.T. .. 12.5 T.D.E.† .. 7.5	" " " " " "
Mustex Wunspray	Malathion .. 7.5 p-chlorophenyl sulphonate p-chloro-benzene 4.0	" " " " " "
George C. Warner's Spraymate	D.D.T. .. 12.5 T.D.E.† .. 10.0 Malathion .. 12.5 D.D.T. .. 14.3	A. C. Hatrick Pty. Ltd., Centre-road, Springvale
R. & T. Multi Tomato Spray	Sulphur .. 28.6 Zineb .. 18.6 Dieldrin .. 20.0	Ramsay and Treganowan Ltd., 469 Latrobe-street, Melbourne
Burnsides Dieldrin Emulsion	Orthodichlorobenzene .. 10.0 Eucalyptus Oil .. 10.0 D.D.T. .. 20.0	W. K. Burnside Pty. Ltd., 34-44 Jeffcott-street, Melbourne
Burnside's Gardpen	Orthodichlorobenzene .. 10.0 Eucalyptus Oil .. 10.0	" " " " " "
Vallo Aramite	2-(p-tert-butylphenoxy)-isopropyl 2-chloro-ethyl sulphite 10.0	Victor Leggo and Farmers Ltd., 206-214 a'Beckett-street, Melbourne
Vallo Aramite 20%	" " " " " " 20.0	Blyth Chemicals Ltd., 24-30 Prahran-grove, Elsternwick
Blue Bell Aramite	" " " " " " 10.0	Shell Chemical (Australia) Pty. Ltd., 278 Queen-street, Melbourne
Shell Aramite 10	" " " " " " 10.0	D.H.A. (Victoria) Pty. Ltd., 504 Bourke-street, Melbourne
Elliotts Aramite	" " " " " " 10.0	Houghton and Byrne (Vic.) Pty. Ltd., 20a Nicholson-street, East Brunswick
1080 Rabbit Bait	Sodium Fluoroacetate .. 0.04	The Biological Institute of Australasia Pty. Ltd., 72 Parramatta-road, Granville, Sydney, N.S.W.
Bio Poultry Gamma Spray Concentrate	Benzene hexachloride .. 5.6 Cresylic acid .. 16.0 Zineb .. 12.5	Vermont Agricultural Chemicals Pty. Ltd., Rooks-road, Vermont
Ver-Kem Complete Lettuce Spray	Malathion .. 10.0 Copper (Cu) .. 3.5	Lane's (Sunshine) Pty. Ltd., 18-20 First-avenue, Sunshine
Lane's Kelthane W.	1, 1-bis(chlorophenyl)-2, 2-Trichloro-ethanol 18.5	" " " " " "
Lane's Chlordane Emulsifiable Concentrate	Chlordane .. 80.0	" " " " " "
Lane's Rose Spray	D.D.T. .. 20.0 Zineb .. 30.0 Malathion .. 10.0 Karathane‡ .. 15.0	" " " " " "
Lane's Sodium Fluosilicate ..	Sodium fluosilicate .. 99.0	The "Nightingale" Supply Co. (Vic.) Ltd., Ingles-street, Port Melbourne
Hygienol Spray	Cresylic acid .. 8.75 Paradichlorobenzene .. 3.75 Nicotine .. 3.0 Naphthalene .. 97.0	Dominant Chemicals Pty. Ltd., Wickham-road, Moorabbin
No Lice Nest Egg	D.D.T. .. 4.0 Benzene hexachloride .. 0.2 Tar acids .. 2.88 Captan .. 16.0	Osmond and Sons (Aust.) Pty. Ltd., 35 William-street, Melbourne
Parakyl	Karathane‡ .. 5.0 Malathion .. 8.5 D.D.T. .. 6.0 Malathion .. 7.5 T.D.E.† .. 4.0	Arthur Yates and Co. Pty. Ltd., 38-38 Burwood-road, Hawthorn
Yates' Rose Spray		" " " " " "
Yates' Pest Master		" " " " " "

† Tetrachlorodiphenylethane; synonymous with dichlorodiphenyl (D.D.D.). The percentage shown is in terms of the para para isomer.

‡ Dinitrocacrylphenyl crotonate.

NOTE.—Wherever D.D.T. is mentioned in this list, the percentage shown is in terms of the para para isomer of dichloro-diphenyl-trichloroethane. Similarly, Benzene Hexachloride is shown in terms of the gamma isomer.

Melbourne, 15th April, 1958.

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