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ALIEN PROPERTY CUSTODIAN

ARSENICAL INSECTICIDAL COMPOSITION

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The use of arseniates in general for the extermination of plant injuring insects in liquid as well as in powder form is already known. The lead arseniate has been found the best of all the arseniates heretofore known as it is very active on all parasitic insects and is innocuous to the plants.

The lead arseniate is, however, generally used in the liquid state that is to say in suspension in water in a concentration of 0.3—0.5%. Experiments have been carried on for using the lead arseniate in the powder state in view of avoiding transportation of water; these experiments however failed to succeed as the lead arseniate owing to its particular nature and its poor flowing properties is not suitable for spraying while when mixed with other inert diluting substances separates and cannot be properly applied. The lead arseniate has not therefore been used in the powder state for agricultural purposes and calcium arseniate has been preferred, which is a flowing powder and can therefore be easily sprayed. Calcium arseniate, however, is far less active than the lead arseniate and cannot be dusted on all plants, as it generally scorches the leaves.

This invention has for its object a process for applying the lead arseniate in the powder state to plants, which complies with all agricultural requirements. It has been found that when the powder of lead arseniate is mixed in a small quantity of water with clays of colloidal nature and having capillary properties very hard agglomerates are obtained when dried, which, when ground, produce flowing and adhesive powders, the particles of which are of equal composition and can be sprayed without risk of separation of the components. As colloidal clays having capillary properties it has been found suitable to use natural or chemically activated fullers earth.

The composition prepared according to this invention has insecticidal properties owing to its lead content acting through ingestion and, moreover, in view of the capillary properties of the agglomerate possesses a remarkable superficial activity, so that it may be largely used as contact insecticide when dusted on the insects. This combined capillary and poisonous action makes the composition suitable for exterminating chewing as well as sucking insects.

The new arsenical composition according to this invention can therefore be used in powder state sprayed on cultivated plants, mixed with seeds, disseminated in the soil, or in the preparation of baits.

The composition according to this application can be diluted, before or after having been agglomerated with other inert insecticidal, fungicidal, attractive, repellent or similar substances.

Example.—70 parts by weight of chemically activated fullers earth and 30 parts by weight of biplumbic arseniate containing 21% of arsenic are introduced into a mixer. The mixture is admixed with water and stirred until a thick homogeneous paste is obtained. The paste is ready for use after 3 hours treatment and is spread on sheets and heated to the temperature of 120—125° C until it is fully dried and hardened. A dry and very hard agglomerate is obtained which is then ground in a ball mill to pass through a sieve of 7000 mesh to the cm². A very fine composition apparently of high density the particles of which however are movable on one another is obtained, which contains about 6.5% of arsenic. This composition is very effective for exterminating chewing and sucking insects attacking olive and vine trees, beets, etc.

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