

United States Department of Agriculture Special Page

Bulletins and Special Articles Issued by the Government, of Interest to the Northwest;
Suggestions Covering a Wide Range of Activities; Result of Federal Investigations, Etc.

Para-Dichlorobenzene

Is a New Insecticide

PARA-DICHLOROBENZENE is the formidable name of a chemical compound which has only recently been used as an insecticide, but which, in being non-inflammable and comparatively inexpensive, possesses advantages over other fumigants. The United States Department of Agriculture's new bulletin (No. 167) is entitled, "Para-dichlorobenzene as an Insect Fumigant," and points out that the compound, although deadly to insects, is harmless to human beings under ordinary conditions and does not have an odor which clings to fabrics as do many insecticides.

Para-dichlorobenzene is applied in most instances in the same manner as camphor and naphthalene. It is not, however, necessary to sprinkle it around in corners or over rugs and other material, as is often the case with camphor and naphthalene, but merely to expose a sufficient quantity in one or two open or partially open receptacles, placed over, or higher, than the infested cases, goods, and material which requires fumigation.

Para-dichlorobenzene at the present time is sold in 5, 10, 25, 50 and 100-pound and barrel lots, the prices for which are as follows:

23 cents per pound in 5, 10 and 25-pound lots.

18 cents per pound in 50-pound lots.

17 cents per pound in 100-pound lots.

15 cents per pound in barrel lots. If any considerable quantity is to be used, it is much better to purchase of some wholesale druggist or direct from the manufacturers.

Para-dichlorobenzene is applicable to many insect pests living under various conditions and environment, and therefore requires specific methods of application, and, unlike carbon bisulphid, it is at the present time used only indoors and in other places where its vapors can be closely confined. As there is a great variation in the tenacity of life among insects, the existing conditions should be carefully noted before para-dichlorobenzene is applied.

Beetles, such as the rice weevil, granary weevil, the confused flour beetle, the cadelle, the yellow mealworm, and a few others less common are particularly hard to kill when in the adult stage. The larvae of certain other mealworms are likewise found by experiment to possess great tenacity of life. It is therefore recommended that a proportionately larger amount of para-dichlorobenzene be used when combating these species.

Moths, flies, roaches, ants and aphides are readily killed by para-dichlorobenzene when used in the ordinary strength as previously recommended.

Fumigation Method

for Imported Seed

A SATISFACTORY method for destroying injurious insects in imported seed without affecting the value of the seed has been used by the United States Department of Agriculture, and is described in a new bulletin (No. 186) entitled, "A Method of Fumigating Seed." Interested individuals who apply to the department at Washington, D. C., will be sent the bulletin.

In the new method the infested seed is placed in a chamber in which a partial vacuum has been created. The chamber is then filled with a very deadly gas—hydro-cyanic acid, which penetrates more effectively into the seed because of the previously created vacuum. It has been found that a considerably shorter exposure was necessary in using this method of fumigation than in the usual method. The bulletin describes the experiment completely, giving details and illustrations of the chamber used in the experiment.

Hydro-cyanic acid is, of course, a most dangerous poison and should not be handled by any except those who are thoroughly familiar with it. Another gas—carbon bisulphid—is to be used by the department in a similar experiment, the results of which will be announced later.

Alfalfa should never be allowed to dry thoroughly in the sun. It makes the leaves shatter and otherwise injures the hay.

Rural Community Organization

A SCHEME for the organization of rural communities for both business and social purposes is worked out in an article which is to appear in the forthcoming Yearbook of the Department of Agriculture, and which has already been printed as a pamphlet for the use of the Department's office of markets and rural organization.

The scheme calls for 10 committees, five of which are to deal with business needs, and five with social needs. Every member of the organization is to serve on some one of these committees. In addition, there is to be a central or executive committee composed of the president of the organization, its secretary, its treasurer, and the chairman of the 10 other committees. This central body is to direct the general policy of the organization, raise all funds and control their expenditures. The committees that are to deal with the business interests of the community are as follows:

Business Committees.

1. Committee on farm production.
2. Committee on marketing.
3. Committee on securing farm supplies.
4. Committee on farm finance and accounting.
5. Committee on communication and transportation.

Social Committees.

Similarly, the five committees that attend to the community's social interests will deal with:

1. Education.
2. Sanitation.
3. Recreation.
4. Beautification.
5. Household economics.

The work of most of these committees is indicated sufficiently clearly by their titles; for example, the committee on production can do much good by improving the breeds of live stock in a community through co-operative purchases of pure-bred males.

It can encourage the formation of corn, poultry, pig, cattle, canning and gardening clubs which have already demonstrated their value in the sections where they have been established; and it can carry on useful studies of the type of agriculture best fitted to local conditions.

Marketing.

In the same way, the committee on marketing can secure the standardization of the community's products and thus obtain better prices than are possible when nondescript goods are dumped upon the market.

The committee can also search out the best markets, make contracts on a large scale which will be more favorable than any individual can secure for himself, and in many other ways economize in the selling of the community's goods. Even if co-operative marketing is not actually resorted to, the information which the committee collects can hardly fail to be of great assistance to the individual shippers.

Just as the committee on marketing can facilitate selling, the committee on farm supplies can economize in buying. Farmers are warned, however, not to underestimate the cost of running a store or commercial agency, and not to overestimate the saving which this can effect. The co-operative society, of course, does away with the necessity of the store's making a profit, but somebody must manage the store and that somebody must be paid for his time. His salary, therefore, corresponds in a way to the ordinary store's profit, and it is not always possible to secure a good man for less than he would be able to make in business for himself.

Purchasing.

There are, however, several methods of purchasing farm supplies co-operatively, which will be found to be of advantage. The simplest is the joint order, in which a group of farmers can buy a given article in large quantities, thereby effecting a considerable saving in the expense of handling, commissions, etc. Sometimes when this method is adopted a warehouse is added which is owned or rented co-operatively, and in which the goods are stored until the associated purchasers need them.

If these two methods have been tried and found successful it may be desirable to carry them out to their logical development and con-

duct a co-operative store which renders the same service to its customers that a private enterprise would. This, however, inevitably leads to complications and should only be undertaken after some experience with similar methods of co-operation.

With the committee on farm finance and accounting, the first duty is to ascertain what farm enterprises can safely be financed. This is only possible when accurate accounts are kept and carefully analyzed. After this has been done the next step is to secure the most favorable terms for financing proper and sound enterprises. This is frequently not difficult if the committee has thoroughly mastered the subject and is able to put it clearly before local bankers.

Securing Capital.

Where the local bankers are unwilling to finance genuinely productive enterprises at a reasonable rate of interest the committee must consider other ways of securing capital. One of the simplest plans for accomplishing this is a credit union or co-operative credit association. The essential features of this plan are that a group of farmers organize themselves to receive deposits and make loans.

By keeping the expenses down to a minimum it has been possible in some cases for such associations to pay interest on deposits that is within 1 per cent of the interest it charges on loans.

The committee on communication and transportation should deal primarily with the roads and telephones. The keynote of the work should be organized self-help, not appeals to get Government help.

Just as the five business committees are to grapple with the fundamental problems of producing and selling in their various forms, the five social committees should direct their efforts to the improvement of living conditions in the country.

Increasing Average Income.

To increase the farmer's income is not the only thing needed to make rural life what it should be. As a matter of fact, says this article, it is the prosperous farmer who is more inclined to move to town than his less fortunate neighbor.

Having accumulated a competence he wishes to enjoy it, and there are five principal reasons which lead him to believe that he can do this better in the city: First, there are usually better facilities for educating his children; second, the sanitary conditions are frequently much better in towns, and the time does not seem to be far distant when the cities will be actually more healthful than the country. Again, household conveniences such as hot and cold water, heating and lighting systems, etc., are more abundant in the towns and add greatly to the comfort of living. Finally, there is more opportunity for recreation in the city, and frequently, strange as it may appear, more to appeal to the sense of beauty that is inherent in practically every man.

Co-operation on the part of rural communities can do as much to alter these conditions as it can to increase the average cash income. The committees that have these matters in charge should, therefore, be regarded as quite as important as those which deal with business questions, and they should receive the same support from the entire community which they are endeavoring to benefit.

The result will be a community spirit which, in its way, is capable of producing as valuable results as the National spirit. In fact, says the article in closing, "Patriotism, like charity, begins at home—that is, in the neighborhood."

Out of the Mouths of Youths.

"Remember, boys," said the master, "that in the bright lexicon of youth there is no such word as fail."

After a few moments a boy raised his hand.

"Well, what is it, my lad?" asked the master.

"I was merely going to suggest," replied the youngster, "that if such is the case it would be advisable to write to the publishers of that lexicon and call their attention to the omission."—Kansas City Star.

January Movement of

Apples From Storage

ACCORDING to investigations conducted by the Office of Markets, United States Department of Agriculture, there was an increase in the movement of cold storage apples during January as compared with December. It is impossible to give the total quantities of boxes and barrels in storage on February 1 because many firms withhold information as to their holdings. However, it is thought that a sufficient number are co-operating with the Office of Markets to warrant conclusions as to the total movement throughout the country.

Basing estimates upon the returns from a large number of commercial apple cold storages and granting the conditions for this number are representative of the whole, it appears (1) that holdings on February 1, 1915, were 28.4 per cent greater than on the same date two years ago; (2) that 25.2 per cent of the total holdings have been moved since December 1, the decrease of barreled stock being 28.4 per cent and boxes 17 per cent; (3) that during January 17 per cent of barreled apples and 10.6 per cent of boxed apples were taken out of cold storage, the total decrease on the basis of holdings December 1 being 15.6 per cent.

It was not thought that the demand for cold storage apples in January would be very much greater than in December, owing to the fact, as pointed out in a previous report, that the large supply of common storage stock, together with Christmas purchases, would restrict the movement of apples from cold storage during last month.

The attention of those interested is called again to the fact that practically all common storage apples, as a rule, pass into consumption by the first of February. If this condition has been true of the present season, it is thought that the movement of cold storage apples will be very large during February and March.

The supply certainly is bountiful and, as the result of low prices and a large demand, it is thought the consumption during the next few months will be sufficient to exhaust the supply.

The advisability of moving the stocks as rapidly as possible is urged upon growers and dealers so that the unusually large holdings may diminish sufficiently to prevent disaster in April or May.

Progress in Campaign

Against Powdery Scab

THE campaign against powdery scab in Maine potatoes has now resulted in the freeing of the following districts: The towns of Medway, Woodville, Mattewamkeag, Winn, Kingman and Prentiss, and the plantations of Webster and Drew, in Penobscot County; and the plantations of Molunkus and Macwahoc, in Aroostook County. Table potatoes grown within these areas may now be shipped in interstate commerce without restriction.

It is also announced in the service and regulatory announcements of the Federal Horticultural Board that the Island of Bornholm, in Denmark, has been freed from the disease, and that potatoes can now be imported into this country from there. These importations were stopped in May, 1914, when powdery scab was found in two bags among a consignment of 480 from the island.

The regulations governing the potato quarantine have also been amended in one or two respects. Under the new regulations potatoes transported in packages can only be put in containers which are either new or have been sterilized since last used. Each container must also have a card initialed by the inspector who issued it. In the case of car-load lots, however, one card is sufficient. Car or schooner lots must be kept separate, in case of re-shipment, from other potatoes.

The service and regulatory announcements of the Federal Horticultural Board also contain notices of three fines, of \$25 each, imposed for violations of the gipsy moth and brown-tail moth quarantine by persons who shipped Christmas trees out of Massachusetts; and two other fines, of \$25 and \$15, for shipping forest products out of the same state.