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WITH OUR CROPS ALBAY B. P. I. AGENTS vs. RICE ARMY-WORMS

PAQUITO SERRANO, Albay

At no other time has the adage— "Necessity is the mother of invention"—been more fully illustrated than at present when rice cut—and army-worms are doing great havoc to the seedlings in four municipalities of Albay. Up to this writing, the number of sacks of palay seedlings attacked by these pests is nearing the 900 mark.

At the inception of the infestation, the local B.P.I. agents were virtually sailing smoothly in combating the crawling saboteurs due to the fact that at the time one drum of calcium arsenate, used in dusting, was available in the office of the Provincial Agricultural Supervisor.

Farmers began to feel the pinch of the sabotage as soon as the arsenical poison got exhausted. And since the worms threatened to decrease the production of palay for this regular season and the requisitioned calcium arsenate from the B.P.I. at Manila was long in coming, the farmers and the field agents had no other alternative but to apply practical control measures in a concerted effort to suppress the ravages immediately.

Aside from overflowing, brooming, picking, crushing and burning the worms, the other measures recommended by the Bureau men proved. to some extent, effective. Some of these are—

1. Application of coconut meal, binlid or tiki-tiki.

The infested area is dried for a period of two or three days by altering the course of the water supply. Broadcast evenly tiki-tiki, binlid or finely shredded coconut meat over the dried area. The theory here is: These materials will at first attract the ants whose next objective will then be the destructive worms. They are either murdered or gorged in by the ants.

2. Application of tubli (fish poison), kanda or madre de cacao.

Dry thoroughly the seedbed attacked. Pound to a pulp a sufficient

Α. ΡΕÑΑ ΟΤΕΥΖΑ

REAL ESTATE BROKER LAND • BUILDING • HOUSE LOAN • RENTAL, ETC, 107 Gastambide St., Sampaloc, Manila quantity of either of the three abovecited plants, pack inside a sack (burlap preferable) and shower a handful of lime. At one corner of the paddies where the water rushes in, make a small depression on where the sack should be inserted in such a way that when the stream flows into the seedbed, the water will carry the aroma of the concoction in the sack, suftocating and poisoning the worms.

3. Application of cement.

Drain the seedbed well and spread the powdery cement over the seedlings.

Although an Albayano farmer rubbed in this control measure, which according to him is successful especially in non-irrigated places as he had experimented already on his infested seedbeds, the field workers of the B.P.I. are skeptical as to the advisability of this method inasmuch as the cement, if used excessively, might prove fatal not only to the enemy but to the tender seedlings as well.

The inadequacy of control laborers (no available fund to hire them) and calcium arsenate coupled by the increasing scope of infestation that tend to spread like butter to other ricegrowing localities of the province, spur the local field workers of the B.P.I. to unfurl new discoveries in combating the noxious rice plague.

Commendable is the recent revelation of Plant Sanitation Inspector Julian C. Ilagan who pulled off a test on the mixture of ricebran (darak) and white arsenic in three different harassed seedbeds owned by three different cooperators in Legaspi.

The mixture was in the proportion of one petroleum can ricebran to onefourth salmon can of white arsenic. Found to be 95% effective, this combination is broadcast over the seedbeds, drained of the last drop of water two or three days previously. In four hours the pests succumbed. The treated seedbeds were then re-irrigated or overflooded to wash the leaves of the seedlings in order to circumvent any possible bad effect of the arsenical poison. To produce tangible results, the application of this poisonous compound should be done early in the morning or late in

(Continued on page 17)

Questions And...

(Continued from page 9)

nary incubators it is necessary that only turkey eggs of the same size be set and that the bulb of the thermometer be placed on the same level with the uppermost portion of the eggs. All other factors to be considered, such as age of eggs, moisture, and heat should be the same as those for chicken eggs.

34. What is the best ratio of toms to hens?

Use one vigorous tom for as many as ten hens in small flocks. In large flocks use one tom for every 6 to 8 hens.

35. What is the percentage of fertility in turkey eggs?

Usually, it is 90% to 100%, which is higher than the percentage in chicken eggs, but sometimes all the eggs in a clutch are infertile.

36. Why is this so?

It appears that a successful breeding is sufficient to fertilize the whole clutch of eggs. However, when one tom is too big and heavy for the hens or if other toms continually interfere during mating, the turkey hen lays infertile eggs.

37. How many turkeys can be reised in a hectare of pasture land?

It is from 20 to 30 hens, depending on the luxuriance of plant growth, and on the number of toms to be used. If most of the food, however, can be given in well-balanced concentrated feed mixtures, even 500 turkeys may be raised per hectare.

Albay B. P. I.

(Continued from page 16) the afternoon.

In one of these experiments conducted on the 15 cavans seedlings of Tomas Alianza of Bagumbayan, Legaspi. Mr. Ilagan found the seedbeds studded with cracks or slits where the worms absconded. Broadcasting of the compound was accomplished around 6:30 p.m. but on account of these slits which practically sheltered the pet peeve of the farmers, success was about 80% only.

Several kilos of white arsenic have been requisitioned from the Manila office of the Bureau of Plant Industry and with the farmers themselves ready and willing to furnish the ricebran, it would not be amiss to avert that this simple mixture may prove a real substitute for calcium arsenate in subjugating the rice cut- and armyworms that today are proving real thorns on the side of the rice planters.

WITH OUR 'TENANTS'

New American Farm Machinery Will Help Farmers Everywhere

By HAROLD FAIR

Reuters' Special Correspondent

NEW YORK, June 6 (Reuter)—New farm machinery designed in the experimental workshops of the United States Government's Tennessee Valley Authority project, a S740,000,000 hydro-electric power and flood control development, will benefit farmers throughtout the world.

The new machinery is being made available for manufacturer by commercial concerns, much of it considered useful for increasing food production in Europe and Asia. The United Nations Relief and Rehabilitation Administra-

It should be remembered that the more birds there are, the more shoots, buds, fruits, and insects are needed for feed every day.

38. Give a poult mash feed mixture.

Mix the following according to weight:

- 3 parts, first-class tiki-tiki
- 2 parts, finely-ground yellow corn 1 part, finely-ground mongo (or soybean oil meal)
- 1 part, binlid
- 1 part, fish meal (or shrimp meal or meat meal)

To every 100 kilos of the abovegiven mixture add 3 kilosof finelyground oyster or clam shells and $\frac{1}{2}$ kilo of salt.

39. When should the teeding of poults start?

The feeding of poults should start 36 to 48 hours after hatching. Like chicks there is sufficient food in their bodies to keep them from getting hungry.

40. Where is the mash feed placed when given to the poults?

On the second and third days small amounts of poult feed may be spread over clean newspaper or other clean surface or directly in the feed trough. From the fourth day on, the feed should be given in the trough and it should be either dry or in moist form but never wet. If moist, the amount should be such that the poults may clear in 15 minutes; they should be fed every three hours. Larger amounts if not consumed are liable to spoil and do harm.

(To be continued)

tion has ordered 500 units of a new threshing machine for use in Central Europe. Another 250 units have been ordered by South American buyers.

Models of the machinery have been placed on public exhibition for manufacturers' inspection and some are on factory assembly lines. The new developments will help farmers thresh wheat mill flour, dry hay, irrigate fields and shell peanuts.

One machine considered suitable for UNRRA and South American use is a trailer thresher. It can be towed behind an automobile from one small hill field to another and threshes—wide variety of grains. A feed grinder has been developed to meet the needs of the small farm. It weighs only 45 pounds exclusive of hopper motor and control attachment automatically regulates the flow of grain into the mill and does not require the constant attendance of the farmer.

Tests have shown this mill can grind all the grain required during the year for an average size farm.

A new machine also has been devised to scarify seeds—to break the hard seed coating to speed germination. Laboratory experiments show 85 to 90 per cent of bush clover seed will germinate within 21 days if it has been scarified. Only 20 per cent of the unscarified seeds germinate in he same period.

Driven by a one-horsepower motor the machine consists of an abrasive disc and fan. It has a capacity of 200 to 300 pounds of seeds per hour.

A special peanut harvester is tractordrawn and equipped with a series of moving forks that pull the peanuts (ground nuts) from the ground, shake the dirt from them and throw them into loose rows for effective drying. One man can operate this harvester and by working two rows at a time can pull and shake 15 to 30 acres of peanuts a day.

Another new devise is a portable sprinkler for irrigation. It consists of a motor-driven pump, a series of sprinklers and durable lightweight pipe with connections that can be readily detached so distribution lines can be easily moved from one place to another over the fields.