

Roundworms of Poultry

Tests conducted at the Indian Veterinary Research Institute, Izatnagar, showed that the largest intestinal roundworm, *ascandia galli*—of poultry could be controlled almost fully with piperazine citrate.

A dose of 0.5 gram of the chemical per bird resulted in completely throwing out the roundworms. A lower dose was not so effective. For worms, which are not fully grown, the dose could be reduced to 0.25 gram per bird.

The drug given through the feed or in drinking water was found to be about 85 to 100 per cent effective.

Termite Damage to Cane

Timely and sufficient irrigation or application of chemicals can effectively protect sugarcane against damage by termites (white ants).

Research at several Sugarcane Research Stations in Madras State have shown that where irrigation is a problem, 25 kilos of 50 per cent Heptachlor can be used for preventing termite damage. The chemical is to be applied in furrows or trenches before planting. It costs Rs. 15 to 18 to treat an acre with Heptachlor.

Termites attack the sugarcane crop in its early stages. They may attack the buds and the young tillers. Such canes do not grow well and come out of the ground with a little pull. During hot weather as much as 30 to 60 per cent of the cane shoots may be damaged.

Aldrin, dieldrin and chlordane are other chemicals which have been found to be effective against termites.

Paddy Stem borer

Experts have found that the application of gamma-BHC, also known as lindane, to irrigation water is effective in killing the pests living inside the paddy plants, such as the stem borers. Ordinary pesticides are effective in killing only the pests feeding on the surface of the paddy plants.

If applied through the irrigation water, gamma-BHC is absorbed by the roots and the other parts of the plant which are under water. It reaches the stems killing the pests living there.

Lindane is applied at 2 kilos of active ingredient per hectare at the maximum tillering stage. This may be followed by another 3 kilos of active ingredient at the booting stage.

The vapours from lindane were found to kill moths and other insects.

Insects on Paddy

By looking at the nature of damage done by it, the farmer can instantly make out which insect has attacked his crop. He can then take prompt measures and prevent heavy insect damage to the crop.

In the nursery and in the newly-planted crop, the curling of leaves is due to thrips. Burning of leaf tops or scraping of leaf tissue in parallel lines is due to hispa. An attack by stem borers, moths, leaf hoppers, swarming caterpillars or hoppers is easily recognized by their presence on leaves. Long hollow silvery tubes in seedlings spell gall midge.

At the tillering stage too, silver shoots mean a gall midge attack. Dry central shoots which when pulled come off easily mean stem borers. Leaf tissue scraped in white parallel lines or blisters on leaves indicate hispa.

Leaves folded along margins and webbed together show the leaf attack. Leaves eaten up entirely to mid-ribs or partly eaten up mean an attack by grasshoppers, cutworms, or armyworms. Yellowing and stunting of plants in patches indicate an attack of mealy bugs. Cut leaves formed into tubular cases attached to the stem or leaves point to cutworms.

When the heads are forming, an offensive smell and partly or completely chaffy heads with bugs on them mean an attack by gundhi bugs. Completely chaffy heads which come off easily when pulled indicate an attack of stem borer larva.

Mexican Wheats

The dwarf Mexican wheats, Lerma Rojo and Sonora-64, give better returns with the application of nitrogenous fertilizers than Indian varieties.

At the U.P. Agricultural University in Pantnagar, for every kilo of nitrogen applied they returned 32 kilos of grain as against 20 kilos by Indian varieties like NP 876 and NP 877.

With 20 kilos of nitrogen per hectare, Lerma Rojo gave a yield of 4,774 kilos of grain as compared with 1,900 kilos from NP 876.

Another finding from these trials was that beyond 45 kilos of nitrogen per hectare, there was no proportionate increase in yield of Indian varieties. But Mexican wheats continued to give increased yields even with doses of up to 90 kilos.

So with Mexican wheats, nitrogen application even to 90 kilos is profitable.

Unirrigated Wheat

Like the irrigated wheat crop, rainfed wheat also responds well to fertilizer application.

In tests conducted at Gurdaspur in Punjab the application of 34 kilos of nitrogen and 17 kilos of P205 per hectare at the time of sowing gave yields of 13.15 quintals of wheat per hectare, against 7.25 quintals of wheat obtained from unfertilized plots.

Increasing the dose of nitrogen to 45 and 67 kilos per hectare increased the yield further by 105 and 345 kilos per hectare respectively.

It was also found that drilling of fertilizers at the time of sowing of wheat under unirrigated conditions enables the crop to withstand rough conditions better than when unfertilized.

To Get Better Milk

Proposals to improve the quality of milk, especially in developing countries, have been submitted to the Food and Agriculture Organization from an FAO-sponsored meeting of seven dairy experts.

The experts made these proposals among others:

The preparation of a monograph on milk quality to be distributed to producers and others

The preparation of a guide for utilization of milk in developing areas.

Price incentives to producers according to basic quality of the milk.

Extension service, from the plant to the producer, to advise, on basic hygienic requirements of milk production.

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ditions obtaining in the different areas must be first determined. The breeders and agronomists are engaged in these investigations. They must be consulted before growing any of them or else there will be frustration and waste of money and time, besides bringing disrepute to a really outstanding variety. This has actually happened in so many cases. Haste and indiscretion are detrimental and must be avoided.

Our food problem is serious, made more so by two consecutive drought years and rising population. Our farmers are conscious of their duty and responsibility to feed the nation adequately. With the latest scientific knowledge available, much larger populations could be fed and clothed than ever before, but our efforts to produce more are offset by the population which is increasing at a terrific pace. The only solution, therefore, appears to be birth control.

Our difficulties in population control are social and emotional. Education of the masses and making them realize that larger families meant more children to feed, clothe, house and educate resulting in lower standards of living accompanied by ill health, disease and poverty, is necessary and urgent.

We believe that as our successful progressive farmers have shown the way to better agricultural practices to their less fortunate fellow farmers, they can also set an example in family planning and persuade the rural community to emulate it to their benefit.

If the project in these two States proves successful, it may be extended to other areas. We have no doubt that our farmers will come out victorious both on the food front and the population control front, resulting in peace, happiness and prosperity of the Nation.