2-1964

Fertilizer-Insecticide Mixtures on Tobacco Plant Beds and Fields

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AGRONOMY NOTES

SOILS • CROPS

Prepared by Department of Agronomy, University of Kentucky Cooperative Extension Service

No. 15 February, 1964

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CORRECTION

Page 2 2nd Paragraph

Question - What fertilizers should be used and at what rates?

The first sentence should read - Thirty pounds of 4-16-4 or 4-12-8 sulfate fertilizer should be used per 100 feet of a 9-foot bed, ----

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Filing Code 1-1 950 - 2-63

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Fertility and insect control programs have a major influence on tobacco production. The proper amounts and kinds of fertilizers and insecticides properly placed will make production more economical on beds and fields if either or both are needed.

Is a fertilizer-insecticide mix the best way to meet the fertility needs and the insecticide needs on tobacco? The following questions and answers should help show how the decision was reached that this method is not recommended.

In the plant bed the green June beetle larva (grubworm) and surface cutworms are the most troublesome soil insects. Wireworms and cutworms are the most important soil insects in the field. Grubworms may be a problem when tobacco follows sod.

What plant beds and fields need insecticides? Insecticides are probably needed any time sod land is plowed for the first time for a new plant bed site or new tobacco fields. Several soil insects that damage tobacco live and thrive on grass roots. Old plant bed sites or fields should be treated only when there is evidence that soil insects caused trouble the previous year, and if the bed or field has not been properly treated during the previous two seasons.

What plant beds and fields need fertilizer? All tobacco plant beds should be fertilized.

In the field fertilizer needs should be determined by a soil test along with past cropping and treatment history and the amount of manure applied.

What insecticides should be used and at what rates? Aldrin, heptachlor, or dieldrin applied at the rate of 3 pounds actual insecticide per acre will give satisfactory control for two or three seasons in either the bed or field, if the insecticide is applied and disked in immediately in the top 2 to 5 inches of soil. No more or no less should be applied. Insecticides should not be applied every year since they are not needed and because annual applications will cause excessive residue to accumulate in the soil.

What fertilizers should be used and at what rates? Thirty pounds of 4-12-8 sulfate fertilizer should be used per 100 feet of a 9-foot bed, 40 pounds of either should be used per 100 feet of a 12-foot bed. Kinds and amounts of fertilizers used in the fields should be determined by a soil test along with treatment and cropping history.

Thus, each field may need its own particular kind and amount of fertilizer.

When should the insecticide be applied and where should it be placed? The best time to apply the insecticide on beds or fields is in the fall after plowing. The insecticide should be disked in immediately after application so as to mix it thoroughly into the top 3 to 4 inches of soil. The insecticide should be disked in before the plant bed is treated for weed control.

The best time to apply insecticide in the field is in the spring after plowing. It should be broadcast and disked in immediately so as to mix it thoroughly into the top 2 to 3 inches of soil. The insecticide can be applied any time in the spring, but for best control it should be in the soil at least 1 week before setting the plants.

When should the fertilizer be applied and where should it be placed? Plant bed fertilizer should be applied at the time of or just before seeding. It should be broadcast and raked in lightly - no deeper than 1 inch. Part or all of the fertilizer used in the field may be broadcast and plowed in at the time the cover crop is plowed down. The same is true when fescue sod is plowed in March or later. If tobacco is being grown on soils of low or moderately low fertility, it may be advisable to drill part of the fertilizer along the row but not in contact with the roots.

This discussion points out some of the areas where time, rate, and placement of fertilizers and insecticides are not compatible. Thus, the Kentucky Agricultural Experiment Station does not recommend application of the two materials as a mixture.

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950-2-64