INTEGRATED PEST MANAGEMENT – A TOOL FOR SUCCESSFUL FARMING

EXTENSION
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Integrated Pest Management (IPM) is an important principle that needs to be adopted for farms to be successful. The use of IPM provides different methods of control, such as biological, cultural and/or chemical methods. For IPM, first identify the pest, second evaluate the severity or impact of the pest and third, determine what is the best option for control or/if multiple control options should be used. Integrated Pest Management is an effective strategy for insect control. By scouting fields for insects, such as bean leaf beetles and using economic thresholds, you can determine if treatment is justified in fields. Many of the economic thresholds of insects are based on the amount of defoliation during vegetative and reproductive stages for soybeans. Here in southeastern Nebraska we are using pheromone traps in the spring so farmers can determine when to scout for black cutwork activity, based on a significant trap count of moths and a temperature model. Whether to treat for black cutworms depends on the percentage of corn plants cut and damaged by the larvae. We also have pheromone traps for armyworms and the variegated cutworms. These worms can also damage different crops throughout the growing season, including vegetable crops. The dingy cutworm is a cutworm that over winters in Nebraska. It is usually the first cutworm that damages the corn in the spring. The use of treated seed and seed that has rootworm resistance as a trait or the use of crop rotations are tools to use for rootworm control. It is always important to scout fields for pests.

Diseases on corn and soybeans are best managed through IPM methods. Planting soybean varieties that are resistant to diseases, i.e. SCN, Sudden Death Syndrome (SDS) or Phytophthora, using seed treatments like ILEVO for Sudden Death Syndrome or using cultural practices like delayed planting of soybeans to reduce SDS infection or planting continuous corn for a couple of years to reduce SCN egg counts are excellent tools for controlling diseases. Soybean Cyst Nematode (SCN) is still is the most expensive soybean disease worldwide. With PI 88788 resistant soybean varieties representing >95% of SCN Resistance Market, soybeans are becoming less effective in preventing SCN reproduction on soybeans and sustaining soybean yields. If soybean yields are declining, it is recommended to use other strategies to maintain yields. It is also recommended to sample soybean fields ever 6 years to determine if SCN numbers are increasing. Scouting fields for foliar diseases in corn and soybeans is also an important strategy to determine if problems exist and if economic thresholds have been met. Accurate identification of the pest is critical to determine the correct treatment and if it is recommended. It is good management not to treat for insects or diseases unless it is required and it is economically feasible. In these times of low commodity prices, IPM will really be the best tool to use in crop production. A relatively new disease to the Nebraska corn crop is Bacteria Leaf Streak. This disease looks very similar to Gray Leaf Spot, except it is a bacteria while Gray Leaf Spot is a fungus. If you treat corn with a fungicide and you have Bacteria Leaf Streak, it will not control it. While it hasn't been confirmed in the four southeast counties in Nebraska (Nemaha, Johnson, Pawnee and Richardson), doesn't mean it isn't here. Make sure you positively ID your disease in corn and soybeans before you treat it. Another disease showing up more in our area is Frogeye Leaf Spot. It is the only disease in soybeans that has developed resistance to strobilurin fungicides in several states in the southeast United States. If you find it in your fields, use fungicides with different modes of action for control. Finally a new insect that is showing up more in Cass and Otoe County is the soybean gall midge. It has also been found in Nemaha and Richardson counties, but not at high populations. Keep an eye out for this new pest in our area. If you have questions about specific insects or diseases, feel free to contact me at the Nemaha County Extension office at (402) 274-4755.

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