Integrated Pest Management (IPM) Helps to Maximize Yield

One of the most important strategies that will help Canadian growers feed a growing world population is integrated pest management (IPM). Growers need to maximize yield across every acre but they need to do this in an efficient, sustainable manner. IPM helps growers deliver on this promise.

Part of IPM means controlling pests in a targeted manner. Growers who follow IPM procedures identify pests, monitor pest levels carefully, and choose the most targeted products to manage their pest situation.

The Canadian Expert Committee in Integrated Pest Management wrote a definition of IPM in 1995: "IPM is a decision-making process that uses all necessary techniques to suppress pests effectively, economically and in an environmentally sound manner."

Good integrated pest management uses the following tools:

- Identifying pests. Whether it's weeds, insects or crop diseases, IPM growers carefully identify pests before applying products.They want to choose the best product for the situation they're facing.
- Monitoring pest populations. It's important to use crop protection products at the best timing possible to achieve the maximum effect without hurting the crop or things like beneficial insects.
- Using predictive tools. It can be difficult to time a fungicide or insecticide application. Often predictive environmental tools are used to time a crop protection application.

IPM example: Reducing impact on beneficials

Protecting beneficial insects is key to a sound IPM strategy. Some beneficials, like parasitoids and predators, are nature's way of controlling crop-destroying insects. Other insects, like bees, pollinate crops and are necessary for life on this planet. It's important to use insecticides that have a negligible impact on beneficial insects.

To minimize potential negative impacts on beneficial non-target insects when using pesticides, farmers should always read and follow label directions and observe other precautions. These include reducing spray drift by avoiding application on windy days, and avoiding application during the day when bees are foraging. Keep good communications open with neighbours about spraying, and select products that are less toxic to bees.

Extensive multi-year laboratory and greenhouse studies conducted by Dr. Cynthia Scott-Dupree at the University of Guelph show that DuPont™ Coragen® insecticide has a negligible impact on key biological control agents – parasitoids and predators – and pollinators, at field-use rates.

Coragen® is an insecticide in a new chemical class (Group 28, the diamides) which is used to control tough insects like Colorado potato beetle and European corn borer. It is classified as a reduced risk product, so it's easy on beneficials and bees when used according to label directions.

IPM example: Resistance management

Using the same products over and over can cause resistance. Growers practicing IPM often use products with new modes of action, such as Coragen®, or products with multiple modes of action on the same pest.

DuPont™ Barricade® herbicide is an example of a product that is an excellent resistance management tool. With two herbicide groups (2 and 4), Barricade® controls broadleaf weeds in cereals two different ways.

Practicing sound IPM is going to be key as growers work to feed a growing worldwide population.

http://www.dupont.ca/en/products-and-services/crop-protection/vegetable-protection/articles/integrated-pest-management.html