Integrated Pest Management – Philosophy and Implementation

Integrated Pest Management (IPM) is a holistic approach to the agriculture industry that focuses on sustainability, managing insects, weeds and diseases through a combination of cultural, physical, biological and chemical methods that are cost effective, environmentally friendly and socially acceptable (FAO 2014). Ultimately, farmers are the decision makers for the implementation of IPM practices and strategies. Crop selection, understanding of weather conditions and field conditions, crop rotation, and crop management early in the season are ways to help prevent issues in-season. Monitoring the crops throughout the growing season will help identify issues that may need managed. If control is needed, the appropriate plan should be incorporated and conducted responsibly.

In western New York, the three methods of control are chemical, physical and cultural. Chemical control has allowed for flexibility as it pertains to pest management. Physical control was common in 2017 as many preventative plant acres were heavily infested with weeds which contributed to aggressive tillage. Cultural control in western NY can be a challenge as it has some of the largest dairy farms in the state. This limits the amount of rotatable acres as the primary crops are corn and alfalfa. Recently, cover crops and implementation of triticale and wheat on farms have widened the window for control methods. However, much of the agricultural production in NY is diverse enough that weed, disease, and insect issues have been kept under control. Furthermore, the crop protection industry is conducting research and development so that we can train the agricultural industry about product use to help prevent resistance in pests.

Integrated Pest Management evaluation and promotion are highly important in NY. Evaluating IPM should be conducted through on-farm research as well as university testing to provide thorough information to the agricultural industry. This involves interacting with co-workers and academic colleagues to obtain the most accurate results for trainings. Promoting IPM is extremely beneficial and important to the agricultural industry as a whole. Training is the best way to interact with growers, consultants, co-workers and fellow organizations. First, correct identification of pests is an extremely important part of IPM. If pests are misidentified, the correct control method might be missed. Second, it is important to know when control is necessary and how control should be carried out. Lastly, the proper use of products and proper disposal of empty containers or unused product is important to the environment and human health. Pest management interactions among livestock and field crops need further evaluation. Integrated Pest Management should be seen as a necessity in our farming systems.

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