

Michigan Supplemental Enhancement Activity

Water Quality Enhancement Activity – WQL13 – High level integrated pest management to reduce pesticide environmental risk.

Enhancement Description

Utilize advanced Integrated Pest Management (IPM) prevention, avoidance, monitoring, and suppression techniques, and only apply the lowest risk pesticides available (or if higher risk pesticides are used appropriate mitigation techniques are used to ameliorate the risk) in an environmentally sound manner when monitoring indicates that an economic pest threshold has been exceeded. Pesticide applications must follow all label requirements.

Land Use Applicability

This enhancement is applicable on crop, pasture, forest and range land.

Benefits

This enhancement will improve water and air quality by reducing toxic pesticide runoff, leaching, drift and volatilization, and also reduce pesticide impacts on pollinators and other beneficial insects.

Criteria for utilizing high level Integrated Pest Management (IPM)

High level IPM includes a written IPM plan and implementation of three or more of the following activities:

Monitoring techniques: intensive crop scouting and recordkeeping program; weed mapping (for field crops); use of traps, baits and pheromone-based mating disruption techniques; photo point monitoring (for pasture); use of weather data from on-farm weather stations for drift management and for pest forecasting models (i.e., tracking growing degree days to forecast critical growth states of a target pest);

Prevention techniques: cleaning equipment and gear when leaving an infested area; using pest-free seeds and transplants; irrigation scheduling to avoid situations conducive to disease development or runoff; use of native plants in windbreaks, field borders and filter strips for promotion of beneficial insects;

Avoidance techniques: using pest resistant varieties; crop rotation; windbreaks; filter strips; conservation tillage;

Suppression techniques such as cultural controls (i.e., changes in planting date or row width, cover crops or mulching for weed control); tillage for weed control where the erosion rate is determined to be acceptable using RUSLE2 and wind erosion evaluation; biological pest control measures; and low risk chemical control methods used judiciously to reduce or eliminate a pest population or its impacts while minimizing risks to non-

target organisms (i.e., low-hazard pesticide as determined by Win-PST; spot spray or band spray instead of broadcast application; precision pesticide application technology to reduce spray drift and the total amount of pesticide applied).

Refer to the Pest Management (595) practice standard for more information.