



WQL13 - Montana Supplement – REVISED 2/22/11

High Level Integrated Pest Management to Reduce Pesticide Environmental Risk – (Water Quality Enhancement Activity)

Montana Clarification

Win-PST will be run at the beginning of the contract for the most commonly applied chemicals. NRCS or a TSP may run Win-PST. A producer may download Win-PST and run themselves, but NRCS will review results. A certified crop advisor or equivalent professional is not required to implement this enhancement. It is acceptable for the producer or a qualified weed manager to develop the high level IPM plan but it must be reviewed by the NRCS area office.

Montana Specifications

High level Integrated Pest Management (IPM) will include the following:

Prevention:

1. Pest-free seeds and transplants
 - a. (Note: weed seed free to certification standards and the seed label is required documentation)
2. Cleaning equipment between fields
 - a. (Note: must include all equipment leaving an infested area)
3. Irrigation management to prevent disease (irrigated land only).
 - a. Fusarium head blight of wheat and barley: “Suspend irrigation prior to flowering until after anthesis. This reduces spore dissemination from in-crop residue” (MSU Montguide).
 - b. Net blotch, spot blotch, and scald diseases of barley: “Management of these diseases can be achieved by crop rotation, variety selection, irrigation management to reduce of humidity in the canopy, light tillage to reduce residue, and fungicide application” (MSU Montguide).
 - c. Sharp eyespot and eyespot/strawbreaker footrot: “**Management:** Crop rotation, variety selection, irrigation management to reduce humidity in the canopy, light tillage to reduce residue, and fungicide application” (MSU Extension web001).
 - d. Fusarium crownrot and common rootrot: “**Management:** Crop rotation, variety selection, proper fertilization, irrigation management to maintain continuous moisture, light tillage to reduce residue where applicable” (MSU Extension web001).
 - e. Fusarium head blight (scab) of wheat and barley: “**Management:** Crop rotation, cut irrigation 10 days before flowering and through the flowering period, resistant varieties, fungicides applied at or before flowering” MSU Extension web003). The MSU Extension specialist is Mary Burrows – There are screen systems to screen weed seeds from irrigation water (visit the Bridger PMC to see one) but are not necessarily required.

Avoidance:

- 1. Pest-resistant varieties
- 2. Crop rotation
- 3. Trap crops.

Monitoring:

- 1. Field scouting
- 2. Soil testing.

Non-chemical suppression (one or both of the following) will be used to maintain pest below the economic threshold:

- 1. Cultural (use of grazing animals to suppress weeds, clipping weeds before they go to seed, pulling weeds, crop rotation, irrigation water management, and nutrient management are some examples of cultural practices)
- 2. Biological - on Montana croplands, biological control is encouraged but not required.

Chemical suppression will be applied when the pest reaches the economic threshold.

Note: Montana State University does not have any formal IPM Guidelines.

Incompatible Enhancements

This enhancement may not be contracted with the following enhancements:

- For crop: ANM21, ANM22, SOE02, SOE03
- For pasture: WQL21
- For range: WQL21
- For forest: none

Eligible Land

Crop, pasture, range and forest land

Applicable Acres

Acres of crop, pasture, range or forest land

Example (System)

A participant operates 3000 acres (1000 acres of cropland and 2000 acres of rangeland). The participant utilizes IPM on the entire operation but is willing to try a higher level of IPM on 500 acres of cropland. The applicable acres would be 1000 acres of cropland. Though rotated throughout the rotation, the applied acres would be 500. The Toolkit plan would look like the following:

	Year 1	Year 2	Year 3	Year 4	Year 5
WQL13	500 ac				

Documentation Requirements

- 1. A description of the high level IPM system that is utilized on all of the offered acres. This description should include each of the following items:
 - a. Pest prevention techniques (weed free seed labels)
 - b. Pest avoidance techniques
 - c. Pest monitoring (scouting) techniques

- d. Economic pest thresholds
 - e. Pesticide environmental risk analysis tool that was utilized (e.g., the NRCS Windows Pesticide Screening Tool – WIN-PST)
 - f. Pesticide application records with the specific management techniques that were utilized to reduce pesticide environmental risk (i.e., spot treatment, banding, pheromone traps, pesticide incorporation, etc.)
2. If formal IPM Guidelines with a numeric scoring system have been developed and approved by Extension, a completed set of those guidelines can be substituted for the documentation requirements in number 1 above. (Note: Note: Montana State University does not have any formal IPM Guidelines.)

I acknowledge that I have read and understand all that is required for the implementation of this CSP Enhancement Activity.

Contract participant

Date