

Environmental Quality Incentives Program

2013 EQIP Signup

Minnesota Supplement for:
Practice Standard 595 – Integrated Pest Management

Supplemental Criteria

1. Integrated Pest Management on CROPLAND is authorized not to exceed 3 payments.
2. **Eligibility for the 595 incentive practice is contingent upon completion of a CAP 114 Pest Management Plan or an equivalent plan meeting CAP 114 criteria.**
3. To receive the payment, Integrated Pest Management must be fully implemented on all acres scheduled for payment. Consult “**Attachment A–Pest Management Requirements for FY 2013 EQIP Contracts.**” Review these requirements with applicants interested in Integrated Pest Management (595), and append the requirements to contracts containing Integrated Pest Management (595).
4. The NRCS will not provide technical assistance for Integrated Pest Management (595). Assistance must be provided by a private sector pest management specialist certified by NRCS.
5. Integrated Pest Management (IPM) for Orchards. Orchards are defined as apples including other pome and/or stone fruit.
6. **Basic (Level 1) IPM for Orchards** includes development and implementation of annual 595 Integrated Pest Management Plans; scouting and monitoring; use of economic thresholds; equipment calibration and recordkeeping. **See Attachment B, Basic and Enhanced Pest Management Requirements for Minnesota Apple Orchards for FY 2013 EQIP contracts** for detail.
7. **Enhanced (Level 2) IPM for Orchards** includes all Basic (Level 1) requirements plus use of pheromone disruptors, inoculum reduction practices and other biologically based or cultural pest controls. Use pesticides having a low or very low human hazard rating as determined by the NRCS Windows Pesticide Screening Tool (WIN-PST). Or install mitigation practices for pesticides having intermediate or high site specific risks as identified by WIN-PST. See **Attachment B-Basic and Enhanced Management Requirements for Minnesota Apple Orchards for FY 2013 EQIP Contracts** for detail and additional requirements.
8. **IPM for Orchards** requires the use of a consultant that is trained and experienced in Orchard Pest Management. Additionally, the consultant must be certified by one of the following: Certified Crop Advisor (CCA) in Minnesota or surrounding states; National Association of Independent Crop Consultants (NAICC); ARPAC Professional Agronomist (CPag); or NRCS Technical Service Provider certified in Pest Management (595)
9. Consult [MN Amendment 25](#) to the National Planning Procedures Handbook for assistance applying NRCS Practice Standard 595 and other NRCS conservation practices to prevent and/or mitigate pest management risks to natural resources.

Scenarios

Basic IPM Field with 1 Resource Concern

A basic IPM plan with LGU-approved pest monitoring techniques and pest thresholds (where available) is applied in Large Scale Field/Forage Crops to address one identified resource concern with either risk prevention (e.g. planned pesticides have no risk to the identified resource concern) or risk mitigation (e.g. planned pesticides have appropriate mitigation planned from MN Amendment 25 to the National Planning Procedures Handbook for “Intermediate”, “High” or “Extra High” WIN-PST Final Hazard Ratings).

Basic IPM Field greater than 1 Resource Concern

A basic IPM plan with LGU-approved pest monitoring techniques and pest thresholds (where available) is applied in Large Scale Field/Forage Crops to address multiple identified resource concerns with either risk prevention (e.g. planned pesticides have no risks to the identified resource concerns) or risk mitigation (e.g. planned pesticides have appropriate mitigation planned from MN Amendment 25 to the National Planning Procedures Handbook for “Intermediate”, “High” or “Extra High” WIN-PST Final Hazard Ratings).

Basic IPM Orchard with 1 Resource Concern

A basic IPM plan with LGU-approved pest monitoring techniques and pest thresholds (where available) is applied in Large Scale Orchard/Specialty Crops to address one identified resource concern (e.g. Water Quality - Impacts to Human Drinking Water) with either risk prevention (e.g. planned pesticides have no risk to the identified resource concern) or risk mitigation (e.g. planned pesticides have appropriate mitigation planned from MN Amendment 25 to the National Planning Procedures Handbook for “Intermediate”, “High” or “Extra High” WIN-PST Final Hazard Ratings).

Basic IPM Orchard greater than 1 Resource Concern

A basic IPM plan with LGU-approved pest monitoring techniques and pest thresholds (where available) is applied in Large Scale Orchard/Specialty Crops to address multiple identified resource concerns (e.g. Water Quality - Impacts to Human Drinking Water and Pollinator Impacts) with either risk prevention (e.g. planned pesticides have no risks to identified resource concerns) or risk mitigation (e.g. planned pesticides have appropriate mitigation planned from MN Amendment 25 to the National Planning Procedures Handbook for “Intermediate”, “High” or “Extra High” WIN-PST Final Hazard Ratings).

Advanced IPM Orchard with All Resource Concerns

A comprehensive IPM plan with LGU-approved pest prevention, avoidance and monitoring techniques and pest thresholds (where available) is applied in Large Scale Orchard/Specialty Crops to address all identified resource concerns with either risk prevention (e.g. planned pesticides have no risk to identified resource concerns) or risk mitigation (e.g. planned pesticides have appropriate mitigation planned from MN Amendment 25 to the National Planning Procedures Handbook for “Intermediate”, “High” or “Extra High” WIN-PST Final Hazard Ratings).

**ATTACHMENT A – BASIC INTEGRATED PEST MANAGEMENT (IPM)
REQUIREMENTS FOR FY 2013 EQIP CONTRACTS**

- **Participants with EQIP contracts containing Integrated Pest Management components must fully implement all items listed below for each of the three scheduled years.**
 - **Payments are released in each scheduled payment year after the producer has certified completion of all required pest management operations.**
1. Promote crop and forage tolerance to pests by:
 - a. planting in a timely manner
 - b. providing proper nutrients, water, and soil conditions that favor rapid establishment and vigorous growth.
 2. Select plant varieties resistant to pests and adapted to growing seasons and hardiness in respective areas of the state. [Variety Trials of Selected Farm Crops](#), published annually by the Minnesota Agriculture Experiment Stations or UM can be consulted for information on hardiness and resistance to certain pests.
 3. Use disease free and weed free seed to prevent introduction of pests into fields.
 4. Consider economic injury level (EIL) and economic treatment (ET) level thresholds when determining if control is necessary. EILs and treatment level thresholds are available from UMES for select pests. Indicate threshold levels used for insects and diseases.
 5. Consider and select multiple pest control techniques based on effectiveness, cost and environmental impact. Options include chemical, biological and mechanical. Evaluate the effectiveness of the techniques used.
 6. Use product effectiveness or efficacy tables to help select most effective control if pesticides are used. The UM Extension Service (UMES) publishes bulletins describing control effectiveness of various pesticides (i.e., [Cultural and Chemical Weed Control in Field Crops](#)).
 7. Read and follow all label requirements when using chemical control treatments (i.e., setback and rate reductions for atrazine or restrictions based on depth to water table for acetachlor).
 8. Store, handle, transport, mix, and dispose of all pesticides, pesticide containers, unused pesticides and rinsate in accordance with state law and safe handling procedures. This includes the following:
 - a. Prevent backsiphoning of pesticides into wells and other water supplies by utilization of a fixed airgap or other Minnesota Department of Agriculture (MDA) or Minnesota Department of Health approved anti-backsiphoning device.
 - b. Do not mix or load pesticides or clean application equipment near wells. Follow [Minnesota Rule Chapter 4725](#) (Well code) for safe separation distances (150 feet without safeguards).
 - c. Do not mix or load pesticides or clean equipment within 150 feet from a sinkhole, streambed, lake, wetland, water impoundment, river or similar area.
 - d. Store pesticides only in the original labeled container, separated from other products such as food, feed, seed, and in a locked building having appropriate warning signs.
 - e. Recycle triple rinsed or pressure rinsed rigid plastic containers through the Empty Pesticide Container Collection and Recycling Program(if available in your area).

9. Calibrate application equipment before mixing and loading pesticides at the beginning of each season and any time nozzle type is changed. Replace worn nozzle tips, hoses, and faulty gauges.
10. Follow recommended [BMPs](#) when using pesticides designated by the MDA as common detection.
11. Scout to properly identify pest conditions, need for and timing of control. Scouting frequency is pest dependent. Scouting is overseen by a TSP. Submit results of scouting and recommendations based on scouting to NRCS.
12. Update NRCS' Windows Pesticide Screening Tool (WIN-PST) to determine relative potential for planned pesticides to move off-site and impact non-target species as needed, see CAP114 plan. Update CPA-047 Pest Mgt Form with mitigation practices as planned pesticides change from CAP114 plan. Submit results to NRCS.
13. Change pest management procedures if current or proposed procedures result in a WIN-PST rating of intermediate or higher for human toxicity. Changes include one or more of the following:
 - a. using low end of label rate ranges
 - b. timing of applications to reduce potential for movement in runoff or leaching
 - c. band applying or spot treating where appropriate
 - d. using companion crops, cover crops and crops residues, when appropriate, to suppress weed growth
 - e. using crop cultivation and shallow tillage operations to control annual and biennial weed seedlings
 - f. installing additional erosion and runoff control measures to minimize off-site movement of applied pesticides
 - g. establishing vegetated buffer areas which separate normal crop production practices from sensitive features such as sinkholes, wells, streams, lakes, waterways and tile inlets.
14. Do not use pest management alternatives with a WIN-PST human hazard rating of “High” or “Extra high” for leaching (ILP) on land within [Drinking Water Supply Management Areas](#) (DWSMAs) having high or very high vulnerability to contamination.
15. Do not use pest management alternatives with a WIN-PST human hazard rating of “Extra high” for leaching (ILP) on land within the boundaries of vulnerable [Source Water Assessment Areas](#) where groundwater is the water supply.
16. Keep field specific detailed pest management records which indicate fields, soil type(s), soil test results, crops, identified pest problem, control applied, date applied and results of control. Also indicate brand name, EPA registration number, active ingredient and rates applied if pesticides are used. Submit records to NRCS.
17. Certify that planned activities have been completed on form MN-CPA-046 (Revised 11/10 or any more recent version) and submit to NRCS by August 31.

***Coarse-Textured Soils. Assessment of this sensitive feature requires a review of soil texture and modifiers not only in the surface horizon but also in surface soil or subsoil anywhere within 36 inches of the surface. Soil texture classification of sand, loamy sand, loamy coarse sand, fine sand, loamy fine sand, loamy very fine sand, coarse sand, very fine sand, and the above soil textures with a modifier of “gravelly” or “very gravelly” are coarse textured by definition, for the purposes of EQIP Nutrient or Pest Management requirements.**

ATTACHMENT B- BASIC AND ADVANCED PEST MANAGEMENT REQUIREMENTS FOR MINNESOTA APPLE ORCHARDS FOR 2013 EQIP CONTRACTS

General Pest Management

- Pest control decisions are based on scouting, monitoring, available threshold information and use of appropriate software to determine disease and insect susceptible periods.
- Multiple pest control techniques are used including cultural, biological and mechanical.
- Pollinator habitat for beneficial insects and native bees is protected or enhanced. Habitat includes:
 - Plants flowering throughout the growing season – see [Pollinator Habitat Job sheet for NRCS](#)
 - Nesting areas

Scouting and Monitoring

- Frequency and type of scouting and monitoring and pest spectrum to scout or monitor for is based on “[Integrated Pest Management Manual for Minnesota Apple Orchards](#)” 2nd edition, Sept. 2007 Minnesota Department of Agriculture.
 - **Basic** IPM requires scouting and monitoring identified in that manual as Moderate IPM/Reduced Pesticide Program (e.g. 16 orchard visits comprising 75 monitoring events).
 - **Advanced** IPM requires scouting and monitoring identified in that document as Advanced IPM/Minimal Pesticide Program (e.g. 26 orchard visits comprising 95 monitoring events).
- Use of on-farm weather monitoring devices and Leaf wetness monitoring.
- Effectiveness monitoring of selected controls

Pesticide Management

- Handling
 - Store, handle, transport, mix, and dispose of all pesticides, pesticide containers, unused pesticides and rinsate in accordance with state law and safe handling procedures.
 - Prevent backsiphoning of pesticides into wells and other water supplies by utilization of a fixed airgap or other Minnesota Department of Agriculture (MDA) or Minnesota Department of Health approved anti-backsiphoning device.
 - Do not mix or load pesticides or clean application equipment near wells. Follow [Minnesota Rule Chapter 4725](#) (Well code) for safe separation distances (150 feet without safeguards).
 - Do not mix or load pesticides or clean equipment within 150 feet from a sinkhole, streambed, lake, wetland, water impoundment, river or similar area.
 - Store pesticides only in the original labeled container, separated from other products such as food, feed, seed, and in a locked building having appropriate warning signs.
 - Recycle triple rinsed or pressure rinsed rigid plastic containers through the [Empty Pesticide Container Collection and Recycling Program](#) (if available in your area).
- Calibrate application equipment at least annually including spray card coverage pattern assessments.
- Read and follow all label requirements.
- Follow recommended [BMPs](#) when using pesticides designated by the MDA as common detection.
- Chemical controls do not negatively impact beneficial organisms or natural pest enemies.
- Use reduced risk products
 - Do not use pest management alternatives with a WIN-PST human hazard rating of “High” or “Extra high” for leaching (ILP) on land within [Drinking Water Supply Management Areas](#) (DWSMAs) having high or very high vulnerability to contamination.
 - Do not use pest management alternatives with a WIN-PST human hazard rating of “Extra high” for leaching (ILP) on land within the boundaries of vulnerable [Source Water Assessment Areas](#) where groundwater is the water supply.
 - Advanced IPM for orchards also requires mitigation when using products having an intermediate or higher rating for human toxicity. Mitigation could include one or more of the following:
 - Use low end of label rate ranges
 - Spot treatments and or use of SmartSprayer technology
 - Establishing vegetated buffers between orchards and sensitive features

Additional Mechanical, Cultural and Biological Controls for Advanced IPM

- Includes
 - Use of controls such as pheromone disruptors including mating disruptors, pheromone traps including pheromone attract and kill, and/or granulosis virus to aid in insect pest management.
 - Inoculum reduction program (e.g. clean sweeping/raking under trees and or applying lime and/or urea after leaf fall)
 - Physically remove and destroy branches, canes, vines and limbs infested with insect or disease pests.
 - Destroy brush piles from winter pruning, mummified fruit, and dead wood from trees. Use a flail mower to destroy leaves and pruning residues 1" diameter and smaller.
 - Release of beneficial organisms
 - Ground covers in drive rows
 - Prevent weeds from going to seed.
 - Mowing under trees (Avoid mowing during bloom and petal fall where mowing destroys habitat for pollinators and beneficial organisms. Some mowing may be necessary to assist in the control of mice and voles.).
 - Post leaf drop mowing

Required Records and Certification

- Records of all scouting/monitoring throughout the season.
- Documentation of yearly pesticide spray equipment calibration and spray-card coverage assessment
- Records of all pesticide applications to include effectiveness.
- Records of yearly pruning.
- Certify that planned activities have been completed on form MN-CPA-046 (Rev 11/10 or more recent) by August 31.

Training

- Attend IPM training at a Tree Fruit IPM School (e.g. Michigan State or Univ. of Minnesota Tree Fruit School); and/or [Wisconsin Apple Growers Association IPM Field Day](#).