Scored Crop Specific Standards

4.01-a FARM/RANCH has access to IPM information resources.
Possible Score 100
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.01-a Verify Resources on hand and in use may include:
Crop: _____
☐ Crop and region-specific production guides
☐ In-season update bulletins, newsletters
☐ Association publications
☐ Industry publications
☐ Bookmarks to on-line resources
☐ Extension bulletins
☐ USDA crop profiles
☐ Other: _____

Crop: _____
☐ Crop and region-specific production guides
☐ In-season update bulletins, newsletters
☐ Association publications
☐ Industry publications
☐ Bookmarks to on-line resources
☐ Extension bulletins
☐ USDA crop profiles
☐ Other: _____

4.02-a FARM/RANCH identifies key pests (those which usually require action to prevent economic losses) and understands key pest biology
Possible Score 100
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.02-a Verify FOR FULL POINTS, FARM/RANCH should be able to identify pest life cycle in relation to crop growth stages, crop-damaging life stage and important behaviors related to pest management. Key pest lists may include:

Crop: _____

- ☐ Insect pests
- ☐ Diseases
- ☐ Weeds
- ☐ Other: _____

Crop: _____

- ☐ Insect pests
- ☐ Diseases
- ☐ Weeds
- ☐ Other: _____

4.03-a FARM/RANCH identifies effective non-chemical and chemical strategies to prevent losses by each key pest.

Possible Score 100

Crop: _____

- ☐ Points Earned

Score: _____

Memo: _____

Crop: _____

- ☐ Points Earned

Score: _____

Memo: _____

4.03-a Verify FOR FULL POINTS, strategies should include both chemical and non-chemical options for each key pest, such as the following:

Crop: _____

- ☐ Cultural
- ☐ Mechanical
- ☐ Biological
- ☐ Chemical
- ☐ Other: _____

Crop: _____

- ☐ Cultural
- ☐ Mechanical
- ☐ Biological
- ☐ Chemical
- ☐ Other: _____

4.04-a FARM/RANCH implements effective scouting, sampling and monitoring techniques for all key pests for which these techniques are available.
Possible Score 100
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.04-a Verify Strategies should include systematic application of one or more of the following for each key pest:
Crop: _____
☐ Visual sampling
☐ Insect traps, sweep nets
☐ Weed mapping
☐ Weather conditions
☐ Extension crop/region pest alerts/forecast
☐ Other: _____

Crop: _____
☐ Visual sampling
☐ Insect traps, sweep nets
☐ Weed mapping
☐ Weather conditions
☐ Extension crop/region pest alerts/forecast
☐ Other: _____

4.05-a FARM/RANCH uses science-based action thresholds to determine when to take action for each key pest for which thresholds are available.
Possible Score 100
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.05-a Verify

Thresholds may include the following:
Crop: _____
- ☐ Visual sampling counts for pests or damage
- ☐ Trap, sweep net counts
- ☐ Specific weather conditions favorable to disease development
- ☐ Economic Threshold
- ☐ Other: _____

Crop: _____
- ☐ Visual sampling counts for pests or damage
- ☐ Trap, sweep net counts
- ☐ Specific weather conditions favorable to disease development
- ☐ Economic Threshold
- ☐ Other: _____

4.06-a Pesticide applications are tied to a documented need.
Possible Score 40
Crop: _____
- ☐ Points Earned

Score: _____
Memo: _____

Crop: _____
- ☐ Points Earned

Score: _____
Memo: _____

4.06-a Verify Documented need may includes the following:
Crop: _____
- ☐ Pest over threshold based on scouting
- ☐ Specific weather conditions favorable to disease
- ☐ Written document supporting the need for preventative application
- ☐ Extension regional pest alerts
- ☐ Crop and site-specific history of pest problems
- ☐ Other: _____

Crop: _____
- ☐ Pest over threshold based on scouting
- ☐ Specific weather conditions favorable to disease
- ☐ Written document supporting the need for preventative application
- ☐ Extension regional pest alerts
- ☐ Crop and site-specific history of pest problems
- ☐ Other: _____

4.06-b Pesticide use efficiency, e.g., use per unit of production, is measured and recorded.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.06-c Pesticide use is tracked and reduced over time by transitioning to non-chemical strategies.
Possible Score 40
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.06-c Verify Non-chemical strategies may include:
Crop: _____
☐ Application techniques: e.g., auto-steering, spot application
☐ Cultural: e.g., insect trapping, barriers
☐ Biological: conserving, importing beneficials
☐ Other: _____

Crop: _____
☐ Application techniques: e.g., auto-steering, spot application
☐ Cultural: e.g., insect trapping, barriers
☐ Biological: conserving, importing beneficials
☐ Other: _____

4.07-a Nutrient application rates reflect available nutrients and projected crop need, i.e., by nutrient management planning.
Possible Score 40
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.07-a Verify FOR FULL POINTS, nutrient application rates must be determined by one or more of the
Crop: _____
☐ Soil sampling
☐ Foliar analysis
☐ Nutrient crediting from prior to concurrent crops
☐ Crop nutrient removal and requirements
☐ Other science-based techniques (describe)

Crop: _____
☐ Soil sampling
☐ Foliar analysis
☐ Nutrient crediting from prior to concurrent crops
☐ Crop nutrient removal and requirements
☐ Other science-based techniques (describe)

4.07-b Nutrient use efficiency, e.g., use per unit of production, is measured and recorded.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.07-c Nutrient use efficiency is tracked and improved over time by transitioning to alternative strategies.
Possible Score 40
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.07-c Verify Strategies may include the following:
Crop: _____
☐ Auto-steering
☐ Variable rate application
☐ Cover crops, green manures
☐ Crop rotations with legumes
☐ Reduced tillage
☐ Timing application to match crop need, split applications
☐ Other: _____

Crop: _____
☐ Variable rate application
☐ Cover crops, green manures
☐ Crop rotations with legumes
☐ Reduced tillage
☐ Timing application to match crop need, split applications
☐ Other: _____

4.08-a FARM/RANCH meets minimum continuing education requirements for pesticide applicator
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.08-b FARM/RANCH participated in IPM/sustainable ag training events in the previous year beyond minimum legal requirements.
Possible Score 40
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.08-b Verify FOR FULL POINTS, FARM/RANCH representatives must have participated in one or more events. Training events may include the following:
Crop: _____
☐ Sustainable ag/IPM training sessions at industry association meetings
☐ Field days held on farms in season
☐ Certified Web based training
☐ Extensions
☐ Other: _____

Crop: _____
☐ Sustainable ag/IPM training sessions at industry association meetings
☐ Field days held on farms in season
☐ Certified Web based training
☐ Extensions
☐ Other: _____

4.08-c Multiple IPM/sustainable ag topics were covered in specific crop training within the last year.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.08-c Verify FOR FULL POINTS, training within the past year must include three or more topics. Training topics may include:

Crop: _____

- ☐ Soil health/quality management
- ☐ Biological controls
- ☐ Scouting, monitoring and/or thresholds
- ☐ New pests
- ☐ Resistance management
- ☐ Other: _____

Crop: _____

- ☐ Soil health/quality management
- ☐ Cultural, mechanical and/or biological controls
- ☐ Scouting, monitoring and/or thresholds
- ☐ New pests
- ☐ Resistance management
- ☐ Other: _____

4.08-d Training records are written and include staff attending, name of session, topics addressed and date.

Possible Score 10

Crop: _____

☐ Points Earned

Score: _____

Memo: _____

Crop: _____

☐ Points Earned

Score: _____

Memo: _____

4.08-e FARM/RANCH provides, host or support events that include IPM/sustainable ag training.

Possible Score 10

Crop: _____

☐ Points Earned

Score: _____

Memo: _____

Crop: _____

☐ Points Earned

Score: _____

Memo: _____

4.09-a FARM/RANCH can identify specific pesticide uses most at risk for pest resistance and can identify pesticides with different modes of action.
Possible Score 40
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.09-a Verify FOR FULL POINTS, both of the following should be true:
Crop: _____
☐ Staff or consultant responsible for pesticide selection can group pesticides used by modes of action
☐ These staff are aware of pesticide uses most at risk of resistance
☐ Other: _____

Crop: _____
☐ Staff or consultant responsible for pesticide selection can group pesticides used by modes of action
☐ These staff are aware of pesticide uses most at risk of resistance
☐ Other: _____

4.09-b In addition to reducing reliance on pesticides through scouting, monitoring, thresholds and/or spot treatments, other strategies are used to delay resistance.
Possible Score 50
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.09-b Verify Other strategies to delay resistance to pesticides may include:

Crop: _____

- ☐ Rotate annual crops where appropriate
- ☐ Establish refuges (untreated areas) where appropriate
- ☐ Rotate or combine modes of action for pesticide uses most at risk of resistance
- ☐ Use maximum application rates for pesticide uses most at risk where appropriate
- ☐ Rotate chemical controls with non-chemical methods where appropriate
- ☐ Biological control
- ☐ Other: _____

Crop: _____

- ☐ Rotate annual crops where appropriate
- ☐ Establish refuges (untreated areas) where appropriate
- ☐ Rotate or combine modes of action for pesticide uses most at risk of resistance
- ☐ Use maximum application rates for pesticide uses most at risk where appropriate
- ☐ Rotate chemical controls with non-chemical methods where appropriate
- ☐ Biological control
- ☐ Other: _____

4.09-c FARM/RANCH formally assesses performance of pesticides most at risk of resistance to detect and report problems early.

Possible Score 10

Crop: _____

☐ Points Earned

Score: _____

Memo: _____

Crop: _____

☐ Points Earned

Score: _____

Memo: _____

4.09-c Verify

Performance assessment may include:

Crop: _____

- ☐ In-field check or comparison strips
- ☐ Post-treatment pest counts in field
- ☐ Laboratory testing of samples collected on site
- ☐ Other: _____

Crop: _____

- ☐ In-field check or comparison strips
- ☐ Post-treatment pest counts in field
- ☐ Laboratory testing of samples collected on site
- ☐ Other: _____

4.10-a FARM/RANCH rank pesticides used by potential for residue on crop at harvest or post-harvest, and reduce/restrict use of those with greatest residue potential.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.10-b FARM/RANCH rank pesticides used by acute toxicity to mammals and reduce use of most toxic.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.10-b Verify Pesticide ranking by acute toxicity to mammals includes:
Crop: _____
☐ Using signal word on product label, "Caution" signifying least-toxic
☐ Other: _____

Crop: _____
☐ Using signal word on product label, "Caution" signifying least-toxic
☐ Other: _____

4.10-c FARM/RANCH rank pesticides used by toxicity to beneficials, including pollinators, and reduce use of most toxic.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.10-c Verify

Pesticide ranking by toxicity to beneficials may include:
Crop: _____
☐ Pollinator safety information on pesticide labels and/or EPA Pollinator Protection Box
☐ New York State IPM Environmental Impact Quotient (EIQ) Calculator output
☐ *How to Reduce Bee Poisoning from Pesticides* (Table 4), Pacific Northwest Extension Publication
☐ *Wild Pollinators of Eastern Apple Orchards and How to Conserve Them* (page 17), Northeastern IPM Center, Cornell University, Penn State University, Xerces Society for Invertebrate Conservation
☐ *The Pesticide Manual* by the British Crop Production Council
☐ Windows Pesticide Screening Tool: Win-PST (http://go.usa.gov/Kok)
☐ Pesticide Risk Mitigation Engine (www.ipmprime.com)
☐ Other: _____

Crop: _____
☐ Pollinator safety information on pesticide labels and/or EPA Pollinator Protection Box
☐ New York State IPM Environmental Impact Quotient (EIQ) Calculator output
☐ *How to Reduce Bee Poisoning from Pesticides* (Table 4), Pacific Northwest Extension Publication
☐ *Wild Pollinators of Eastern Apple Orchards and How to Conserve Them* (page 17), Northeastern IPM Center, Cornell University, Penn State University, Xerces Society for Invertebrate Conservation
☐ *The Pesticide Manual* by the British Crop Production Council
☐ Pesticide Risk Mitigation Engine (www.ipmprime.com)
☐ Other: _____

4.10-d FARM/RANCH rank pesticides used by chronic toxicity to mammals and reduce use of most toxic.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.10-d Verify Pesticide ranking by chronic toxicity to mammals may include:
Crop: _____
☐ MSDS information on chronic hazards
☐ US EPA Carcinogencity rating, international agency for cancer research and/or California Proposition 65
☐ Reproductive/developmental toxicity (EPA, CA Prop 65)
☐ Endocrine system hazard rating
☐ Other: _____

Crop: _____
☐ MSDS information on chronic hazards
☐ US EPA Carcinogencity rating, international agency for cancer research and/or California Proposition 65
☐ Reproductive/developmental toxicity (EPA, CA Prop 65)
☐ Endocrine system hazard rating
☐ Other: _____

4.10-e FARM/RANCH rank pesticides used by eco-toxicity and reduce use of those with greatest hazards.
Possible Score 20
Crop: _____
☐ Points Earned
Score: _____
Memo: _____

Crop: _____
☐ Points Earned
Score: _____
Memo: _____

4.10-e Verify Pesticide ranking by eco-toxicity hazards may include:

Crop: _____

- ☐ Groundwater contamination
- ☐ Surface water contamination
- ☐ Birds
- ☐ Aquatic organisms
- ☐ Amphibians
- ☐ Ozone depleter
- ☐ Volatile organic compounds (VOCs)
- ☐ Other: _____

Crop: _____

- ☐ Groundwater contamination
- ☐ Surface water contamination
- ☐ Birds
- ☐ Aquatic organisms
- ☐ Amphibians
- ☐ Ozone depleter
- ☐ Volatile organic compounds (VOCs)
- ☐ Other: _____

4.11-a FARM/RANCH protects bes and other pollinators from pesticide applications.

Possible Score 40

Crop: _____

- ☐ Points Earned

Score: _____

Memo: _____

Crop: _____

- ☐ Points Earned

Score: _____

Memo: _____

4.11-a Verify Strategies to protect pollinators from pesticide applications may include:

Crop: _____

- ☐ IPM practices are implemented to minimize pesticide use and risk to pollinators
- ☐ Pesticides toxic to bees are not applied to crops in bloom
- ☐ Pesticides are not allowed to drift onto adjacent blooming plants that are attractive to pollinators
- ☐ Pollinator habitat outside of cropped areas is identified, and if present, ≥ 20 ft. buffers are maintained around habitat to reduce risk from pesticide drift
- ☐ Forecasted low temperatures or dew are considered when applying pesticide toxic to bees to cropped areas where bees are expect to be foraging; residues may remain toxic to bees at least twice as long under these conditions
- ☐ Pesticides toxic to bees are applied when pollinators are not active, e.g., evening, night
- ☐ When managed hives are present on the farm, beekeepers are informed when, where, how and what pesticide(s) are being applied
- ☐ Apiaries and sites on the farm containing crops sensitive to pesticide drift and are registered online at www.driftwatch.org or a similar system by the supplier/sub-supplier to enhance communication between growers and pesticide applicators to reduce drift incidents
- ☐ Other: _____

Crop: _____

- ☐ IPM practices are implemented to minimize pesticide use and risk to pollinators
- ☐ Pesticides toxic to bees are not applied to crops in bloom or to adjacent blooming plants that are attractive to pollinators
- ☐ Pollinator habitat outside of cropped areas is identified, and if present, ≥ 20 ft. buffers are maintained around habitat to reduce risk from pesticide drift
- ☐ Forecasted low temperatures or dew are considered when applying pesticide toxic to bees to cropped areas where bees are expect to be foraging; residues may remain toxic to bees at least twice as long under these conditions
- ☐ Pesticides toxic to bees are applied when most pollinators are less active, e.g., evening, night
- ☐ When managed hives are present on the farm, beekeepers are informed when, where, how and what pesticide(s) are being applied
- ☐ Apiaries and sites on the farm containing crops sensitive to pesticide drift and are registered online at www.driftwatch.org or a similar system by the supplier/sub-supplier to enhance communication between growers and pesticide applicators to reduce drift incidents
- ☐ Other: _____