

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**I. Strategy 1: Knowledge & Continuing Education**

A. **Tactic:** Attend meetings & workshops, keep up-to-date on new information (On your operation" i.e., doesn't have to be the owner)

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 2                    | Read university / extension publications (1 pt each)  | 8               |             | 3.01                           |
|                      | Attend state or regional IPM meetings/ seminars/ demonstrations and field days (2 pts each) | 8               |             | 3.01                           |
|                      | Receive advanced IPM training (3 pts each)  | 9               |             | 3.01                           |
|                      | Read & review Ecology/Ecosystem-related publications and websites (non-cumulative)          | 3               |             | 3.01                           |
| <b>Total Points:</b> |   | <b>28</b>       |             |                                |

B. **Tactic:** Consult with and use the services of knowledgeable people for pest management decisions

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 3                    | Chemical rep trained in IPM                                  | 2               |             | 3.01                           |
|                      | University / extension personnel                             | 4               |             | 3.01                           |
|                      | Independent crop consultant (employed throughout the season) | 6               |             | 3.01                           |
| <b>Total Points:</b> |  | <b>12</b>       |             |                                |

C. **Tactic:** Participate in USDA Natural Resources Conservation Service (NRCS) and Michigan Agriculture Environmental Assurance (MAEAP) programs

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 4                    | Environmental Quality Incentives Program (EQIP) | 4               |             | N/A                            |
|                      | Conservation Security Program (CSP)             | 2               |             | N/A                            |
|                      | Wildlife Habitat Incentives Program (WHIP)      | 2               |             | N/A                            |
|                      | MAEAP Cropping System Verification Program      | 4               |             | ALL                            |
| <b>Total Points:</b> |   | <b>12</b>       |             |                                |

**Strategy 1 Tally:** \_\_\_\_\_ / 52 possible

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**II. Strategy 2: Monitoring**

**A. Tactic: Pest scouting during the season**

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 6                    | Orchard inspection by paid crop consultant trained in IPM                                | 5               |             | 3.01                           |
|                      | Orchard inspection by self or employee trained in IPM                                    | 5               |             | 3.01                           |
|                      | Each block of orchard inspected once per week by qualified individual (trained in IPM)   | 6               |             | 3.01                           |
|                      | Each block of orchard inspected every two weeks by qualified individual (trained in IPM) | 3               |             | 3.01                           |
| <b>Total Points:</b> |  | <b>16</b>       |             |                                |

**B. Tactic: Monitor for beneficials**

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 7                    | Use yellow sticky traps, beating tray or sweep net                            | 4               |             | 3.01, 3.03                     |
|                      | Visually check leaves/limbs/buds for predatory and parasitic insects or mites | 4               |             | 3.01, 3.03                     |
| <b>Total Points:</b> |   | <b>8</b>        |             |                                |

**C. Tactic: Use sampling & monitoring for insect & disease management decisions**

| Page                 | Tool   | Possible Points    | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|--------------------|-------------|--------------------------------|
| 8                    | Use cherry fruit-fly traps   | Block-specific     | 5           | 3.01, 3.03                     |
|                      |  | Non block-specific | 2           |                                |
|                      | Use pheromone-baited traps for monitoring insect pests (leafrollers, borers, green fruit worm) | Block-specific     | 6           | 3.01, 3.03                     |
|                      |  | Non block-specific | 2           |                                |
|                      | Use plum curculio traps and/or monitor with visual inspection                                  | Block-specific     | 4           | 3.01, 3.03                     |
|                      |  | Non block-specific | 2           |                                |
| <b>Total Points:</b> |  | <b>15</b>          |             |                                |

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**D. Tactic:** Use monitoring & sampling for mite management decisions

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 9                    | Use economic thresholds for mite management decisions | 4               |             | 3.01, 3.03                     |
| <b>Total Points:</b> |   | <b>4</b>        |             |                                |

**E. Tactic:** Monitor for weeds before making herbicide decisions

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 10                   | Make herbicide decisions based on systematic survey of orchard for weed identification | 4               |             | 3.01, 3.02                     |
| <b>Total Points:</b> |  | <b>4</b>        |             |                                |

**F. Tactic:** Monitor the weather for disease & insect management decisions

| Page                 | Tool   | Possible Points                    | Your Points | MAEAP Fruit*A*Syst Practice(s) |                  |
|----------------------|--|------------------------------------|-------------|--------------------------------|------------------|
| 11                   | On-farm weather station (4 pts each; max 8)  | 8                                  |             | 3.01, 3.03, 3.04               |                  |
|                      | Consult Enviro-weather or other weather-based models (credit for one or the other) | Before every spray decision        | 4           |                                | 3.01, 3.03, 3.04 |
|                      |  | About every week during the season | 2           |                                |                  |
| <b>Total Points:</b> |  | <b>12</b>                          |             |                                |                  |

**G. Tactic:** Maintain pesticide and scouting reports

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 12                   | Electronic or Written records                           | 6               |             | 3.01, 3.20                     |
|                      |   | 5               |             |                                |
|                      | Review report histories to inform management decisions` | 2               |             | 3.01, 3.20                     |
| <b>Total Points:</b> |   | <b>8</b>        |             |                                |

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**H. Tactic: Monitor soil & leaf health/quality**

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 13                   | Conduct soil samples & lab tests at least every 3 years | 4               |             | 1.01, 3.01                     |
|                      | Conduct leaf samples & lab tests at least every 3 years | 4               |             | 1.01, 3.01                     |
| <b>Total Points:</b> |   | <b>8</b>        |             |                                |

**I. Tactic: Monitor the tree-vigor**

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 14                   | Monitor shoot-growth  | 2               |             | 1.11, 3.01                     |
|                      | Visually monitor leaf-to-fruit ratio for management decisions | 3               |             | 1.11, 3.01                     |
| <b>Total Points:</b> |   | <b>5</b>        |             |                                |

**Strategy 2 Tally: \_\_\_\_\_ / 80 possible**

**III. Strategy 3: Pest suppression (insects, mites, weeds, fungi, bacteria, nematodes and viruses)**

**A. Tactic: Protect/conserv e natural enemy populations & pollinators**

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 16                   | Select insecticides to protect insect natural enemies | 4               |             | 3.01, 3.03, 3.21               |
|                      | Select pesticides to protect mite natural enemies     | 4               |             | 3.01, 3.03, 3.21               |
|                      | Select pesticides to protect pollinators              | 4               |             | 3.01, 3.03                     |
| <b>Total Points:</b> |   | <b>12</b>       |             |                                |

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**B. Tactic: Practice resistance management**

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 17                   | Rotate insecticide modes of action   | 4               |             | 3.01, 3.03, 3.13               |
|                      | Rotate fungicide modes of action   | 4               |             | 3.01, 3.04, 3.13               |
|                      | Rotate herbicide modes of action   | 4               |             | 3.01, 3.02, 3.13               |
|                      | Review insect & chemical histories in the orchard for resistance management decisions  | 2               |             | 3.01, 3.03, 3.13               |
|                      | Review disease & chemical histories in the orchard for resistance management decisions | 2               |             | 3.01, 3.04, 3.13               |
|                      | Review weed & chemical histories in the orchard for resistance management decisions    | 2               |             | 3.01, 3.02, 3.13               |
|                      | Test for resistance for disease mgmt as part of a university study/program             | 1               |             | 3.01, 3.04, 3.13               |
|                      | Test for resistance for insect mgmt as part of a university study/program              | 1               |             | 3.01, 3.03, 3.13               |
|                      | Test for resistance for weed mgmt as part of a university study/program                | 1               |             | 3.01, 3.02, 3.13               |
|                      | Develop a resistance management plan & implement it in the orchard                     | 3               |             | 3.01, 3.13                     |
| <b>Total Points:</b> |  | <b>24</b>       |             |                                |

**C. Tactic: Manage & maintain tree vigor**

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 18                   | Apply soil micro & macro nutrients based on test results  | 3               |             | 1.01, 1.11, 3.01               |
|                      | Apply foliar micro & macro nutrients based on test results  | 3               |             | 1.11, 3.01                     |
|                      | Prune for bud initiation, to maintain adequate ratio of leaf to fruit buds, & improved spray coverage | 2               |             | 1.11, 3.01                     |
|                      | Use Giberillic acid   | 1               |             | 3.01                           |
| <b>Total Points:</b> |   | <b>9</b>        |             |                                |

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**D. Tactic:** Use cover crops and/or companion plantings

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 19                   | Plant cover crops to suppress weed pests and/or enhance soil nutrients and quality                     | 4               |             | 2.01, 3.01, 3.02               |
|                      | Maintain plants and/or cover crops to support insect natural enemies                                   | 4               |             | 3.01, 3.03, 3.22               |
|                      | Maintain companion plantings outside the orchard to augment natural enemies and/or natural pollinators | 4               |             | 3.01, 3.03, 3.22               |
| <b>Total Points:</b> |  | <b>12</b>       |             |                                |

**E. Tactic:** Manage and conserve moisture in the orchard

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 20                   | Use drip/trickle irrigation and/or mini/micro sprayers   | 3               |             | 3.01, 5.01                     |
|                      | Schedule irrigation based on soil water monitoring   | 4               |             | 3.01, 5.03, 5.04               |
|                      | Practices that maintain or improve/increase soil organic matter under the tree" e.g., mulching | 2               |             | 3.01                           |
| <b>Total Points:</b> |  | <b>9</b>        |             |                                |

**F. Tactic:** Orchard floor management

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 21                   | Flailing, chopping & pruning for soil organic matter improvement   | 2               |             | 2.04, 3.01                     |
|                      | Use mulching for weed suppression  | 2               |             | 3.01, 3.02, 3.07               |
|                      | Use cultural practices to select for plant species that help with insect & mite management   | 2               |             | 3.01, 3.03, 3.22, 3.23         |
|                      | Maintain permanent vegetation between rows   | 2               |             | 3.01                           |
|                      | Use cultural practices for inoculum suppression (flail mowing of prunings, shredding of leaf litter, urea or manure applications in drive row) | 2               |             | 3.01, 3.04                     |
| <b>Total Points:</b> |  | <b>10</b>       |             |                                |

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**G. Tactic: Maximize pesticide efficacy**

| Page                 | Tool                         | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|------------------------------|-----------------|-------------|--------------------------------|
| 22                   | Test water for pH levels     | 1               |             | 3.01                           |
|                      | Check tank mix compatibility | 1               |             | 3.01                           |
| <b>Total Points:</b> |                              | <b>2</b>        |             |                                |

**Strategy 3 Tally: \_\_\_\_\_ / 78 possible**

**H. Bonus: Participate in on-farm trials / Use experimental practices**

| Page                 | Tool   | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|--|-----------------|-------------|--------------------------------|
| 23                   | Use entomopathogenic nematodes for insect control  | 3               |             | 3.01, 3.03                     |
|                      | Use entomopathogenic fungi for insect control  | 3               |             | 3.01, 3.03                     |
|                      | Use GF-120 bait  | 3               |             | 3.01, 3.03                     |
|                      | Relocate or introduce generalist predators (e.g., ladybird beetles, parasitic wasps)           | 3               |             | 3.01, 3.03                     |
|                      | Relocate or introduce predatory mites  | 3               |             | 3.01, 3.03                     |
|                      | Use bird or bat boxes to encourage vertebrate predators of rodent pests (e.g., mice and voles) | 3               |             | 3.01                           |
| <b>Total Points:</b> |  | <b>18</b>       |             |                                |

**IV. Strategy 4: Drift Management**

**A. Tactic: Minimize pesticide drift**

| Page                 | Tool  | Possible Points | Your Points | MAEAP Fruit*A*Syst Practice(s) |
|----------------------|---|-----------------|-------------|--------------------------------|
| 25                   | Follow a drift management plan                          | 2               |             | 3.01, 3.18                     |
|                      | Calibrate your sprayer annually                         | 2               |             | 3.01, 3.17                     |
|                      | Maintain windbreaks around your orchards                | 1               |             | 3.01                           |
|                      | Consult the forecast before spraying                    | 1               |             | 3.01, 3.05, 3.07               |
|                      | Avoid spraying on windy days                            | 1               |             | 3.01, 3.05, 3.19               |
|                      | Use a sensor-controlled sprayer                         | 1               |             | 3.01, 3.05                     |
|                      | Use a sprayer that improves uniformity and droplet size | 1               |             | 3.01, 3.05                     |
| <b>Total Points:</b> |   | <b>9</b>        |             |                                |

**Strategy 4 Tally: \_\_\_\_\_ / 9 possible**

**Tart Cherry IPM Self Assessment Guide**  
**TALLY SHEETS**

**Summary Table**

| Page          | Strategy | Points | Possible Points |
|---------------|----------|--------|-----------------|
| 1             | 1        |        | 52              |
| 4             | 2        |        | 80              |
| 7             | 3        |        | 78              |
| 7             | 4        |        | 9               |
| 7             | Bonus    |        | 16              |
| <b>Totals</b> |          |        | <b>219</b>      |

| <b>Tart Cherry IPM Scale</b> |                  |
|------------------------------|------------------|
| Not IPM                      | 1 – 54 points    |
| Low IPM                      | 55 – 109 points  |
| Medium IPM                   | 110 – 164 points |
| High IPM                     | 165 – 219 points |

To determine your current level of IPM, complete the summary table by recording your total points for each strategy. The page where you can find each strategy’s total is listed in the first column for convenience. After you have added up your total, find where it falls on the IPM scale using the table on the right. If you scored below 55 points, your current practices are not considered IPM. Scores between 55 and 109 are low IPM, meaning that you use some IPM practices, but there is room for greater use of IPM practices. Scores between 110 and 164 points are considered medium IPM. This is where the majority of tart cherry producers will find themselves. High, or bio-intensive, IPM include all scores above 165 points. If you find yourself here, you are among the top IPM producers for tart cherries in the US.

You can use the following pages to create an action plan to improve your IPM score.



**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**Action Plan for Improvement**

To create an action plan to improve your IPM score, first select the tactics and tools that your are not currently using and record them in the tables that follow. You can note the reference guide page number to find information about the tactic. In the notes, column, describe the steps necessary for you to begin implementing the tool, or practice. For example, you might start with the name and number of your local extension agent, list some reference materials to gather or buy, such as MSUE Bulletins, or write down some websites to visit. In the last column, record the date you have completion date – this is the date when you can state that you have begun to utilize the IPM tool. You can add additional pages as necessary.

**Strategy 1: Knowledge & Continuing Education**

| <b>Tools</b> | <b>Reference Guide Page</b> | <b>Notes:</b> people to contact, reference materials, to-do items, etc. | <b>Completion Date</b> |
|--------------|-----------------------------|---|------------------------|
|              |                             |   |                        |

**Tart Cherry IPM Self Assessment Guide**  
**TALLY SHEETS**

**Strategy 2: Monitoring**

| <b>Tools</b> | <b>Reference Guide Page</b> | <b>Notes:</b> people to contact, reference materials, to-do items, etc. | <b>Completion Date</b> |
|--------------|-----------------------------|---|------------------------|
|              |                             |   |                        |

**Tart Cherry IPM Self Assessment Guide  
TALLY SHEETS**

**Strategy 3: Pest Suppression**

| <b>Tools</b> | <b>Reference<br/>Guide<br/>Page</b> | <b>Notes:</b> people to contact, reference<br>materials, to-do items, etc. | <b>Completion<br/>Date</b> |
|--------------|-------------------------------------|--|----------------------------|
|              |                                     |  |                            |

**Tart Cherry IPM Self Assessment Guide**  
**TALLY SHEETS**

**Strategy 4: Drift Management**

| <b>Tools</b> | <b>Reference<br/>Guide<br/>Page</b> | <b>Notes:</b> people to contact, reference<br>materials, to-do items, etc. | <b>Completion<br/>Date</b> |
|--------------|-------------------------------------|--|----------------------------|
|              |                                     |  |                            |