

Resources for School Orchards

Resources on the Web

- University of Maine Cooperative Extension Apple Pest resources: <http://umaine.edu/ipm/programs/apple/publications/> useful resources including free downloadable copy of the *Orchard Fruit Pest Management Pesticide Applicator Training Manual*
- Practical Guide for Organic Apple Production: www.uvm.edu/~organica/PracticalGuide/Home.html
- Fedco Seeds Tree and Shrub Planting and Care Guide: www.fedcoseeds.com/trees/planting_guide.htm
- National Sustainable Agriculture Information Service: <https://attra.ncat.org/>
- (Fact sheets and guidance on a variety of sustainable crop production and pest management topics)
- New England Tree Fruit Management Guide 2012 <http://fruit.umext.umass.edu/2012netfmg/>
- Apple Maggot Management in Home Gardens <http://www.extension.umn.edu/distribution/horticulture/DG1007.html>
- Orchard Radar: www.pronewengland.org/AllModels/RadarIntro.htm (free apple pest forecasting service)
- Pest Management Resources Online for New England: www.pronewengland.org
- Northeast IPM Center: www.neipmc.org (1,000s of fact sheets and other resources in searchable database)
- Internet Center for Wildlife Damage Management: <http://icwdm.org>
- Wild Pollinators of Eastern Apple Orchards and How to Conserve Them, 2012. Park, M. et al. www.northeastipm.org/park2012

Books

- New England Apple Production Guide. Tree Fruit Field Guide to Insect, Mite and Disease Pests of Eastern North America, Agnello, A. et al. 2006. (available from University of Maine Cooperative Extension, \$36)
- Growing Fruit Trees in Maine. University of Maine Cooperative Extension Bulletin #2422. \$9.50.

Supplies and Equipment

- Johnnies Seeds www.johnnyseeds.com. 1-877-johnnys
- Gemplers www.gemplers.com 1-800-382-8473
- Great Lakes IPM www.greatlakesipm.com 1-800-235-0285

Eight Things You Can Do to Manage Pests in School Orchards

- 1. Get a pesticide applicators license.** APPLICATION OF ANY PESTICIDE ON SCHOOL-USED PROPERTIES REQUIRES A COMMERCIAL APPLICATORS LICENSE. This applies to all chemicals intended to manage or prevent pests including but not limited to deer repellents, organic pesticides, mouse poisons, plant disease protectants, weed-killers, weed & feed products, and insecticides. Visit www.thinkfirstspraylast.org or call 207-287-2731 to find out how to get licensed.
- 2. Choose disease resistant cultivars.** Scab resistant apple cultivars include Goldrush, Enterprise, Florina, Liberty, Jonafree, Macfree, Novamac, Nova Easygro, Prima, Priscilla, Sundance, Scarlet O'Hara, William's Pride.
- 3. Start with a good site.** Fruit trees need 18" of well-drained soil with pH of 6.0-7.0. Get a soil test and apply fertilizers and lime accordingly. Avoid low, frost-prone, wet, and shady spots. Fruit production is best in full-sunlight. Plant as far away from woods and unmanaged fruit trees as possible and keep good spacing between fruit trees (semi-dwarf: 15', standard apples: 25') to reduce pest problems.
- 4. Use good horticultural practices to keep trees healthy.** Stake young trees if needed. Prune branches of fruit-bearing trees to allow for adequate sunlight penetration and air movement around remaining branches. Water newly planted trees if rainfall is less than 1"/week.
- 5. Mow low or mulch under trees to suppress weeds.** Grass and herbaceous weeds compete for water, harbor pests and interfere with removal of dropped fruit and disease spores in dropped leaves.
- 6. Yes, you will get pests.** Lower the bar on perfection; pests are a terrific opportunity for learning! Learn to identify signs of common pests such as apple maggot, codling moth, round-headed apple borer, apple scab, voles and deer (see reverse for resources). Look for pests and their damage weekly (students are good at this!). **Trunk borers:** Small (< 4" trunk diameter) and young (< 10 years) are susceptible to a serious pest, the round-headed apple borer: Paint lower 2' of trunk with white interior latex paint, mixed with joint compound (see Fedco Guide www.fedcoseeds.com/trees/planting_guide.htm).
- 7. Prevent wormy apples.** Hang 5 sticky sphere traps per tree, beginning in mid-July to trap-out apple maggot flies. Clean with paper towels and vegetable oil and reapply sticky coating (eg TangleTrap®) as needed when traps become covered with debris and insects. Alternatively, tie a small plastic bag over each apple; cut off bottom corners to allow moisture drainage. Remove dropped apples every few days; use for cider, remove off site, or bury deeply (1 ft) in the ground.
- 8. Oh dear, deer!** Deer repellents: 1) Place two handfuls of human hair (from local salon or barber) in fine-mesh bags and hang on the outer branches with no more than 3 feet (0.9 m) between bags. Attach the bags early in spring; replace monthly through the growing season. 2) Hang bars of soap, spaced every 3 feet, from branches. Fencing: Where deer pressure is high, install fencing (see resources on opposite side for specifications). Protect young trees from voles (field mice) by wrapping ¼" mesh hardware cloth loosely around the lower 12-18" of each trunk; bury bottom edge 6" deep. Or use plastic spiral guards but remove them in the spring to discourage borers.
- 9. Spring cleaning:** Rake and compost, burn or remove leaves and debris under and around trees before May to remove fungal disease spores.
- 10. Protect and promote pollinators.** If using pesticides, follow label exactly and do not spray when bees are active. Invite a local beekeeper to bring in one or more honeybee hives or do it yourself. Plant or leave unmown a patch of wildflowers to provide a season-long supply of flowering plants for native pollinators and honeybees.