2016 Orchard Task Outline

Dormant Season – Mid-December to Mid-February:

- Check for damage from deer and test electric fence [weekly]
- Set rabbit traps when there is snow cover [check daily]
- Sharpen pruners
- Reflect on last year's crop and make modifications to spray plan
- Inventory orchard supplies and order supplies
- Remove bordering pest host trees (especially Walnut and Plum trees)
- Attend conferences and workshops

Winter Pruning Season – Mid-February to Early-April, depending on the year:

- Prepare pruning map to track progress and hours
- Prune all trees (prune low chill hour varieties last)
- Remove all suckers from trees
- Sharpen pruners regularly [daily, or at least once a week while actively pruning]
- Check damage from deer and test electric fence [weekly]
- Trap rabbits when there is snow cover [check daily]
- Spray understory with low-nitrogen solution to reduce scab inoculum by breaking down last year's leaf litter

Dormant Season through Bud Break – Early-April to Early-May, depending on the year:

- Mow prunings in the orchard remove any cankered wood from orchard
- Apply copper and dormant oil spray after completion of pruning, but prior to 1/4" green
- Primary scab season has began start spray management program [treat prior to scab infestation events]
- Install trellising wire for new planting
- Tighten wires on existing trellising
- Plant new trees
- Start understory management program
- Be wary of frost events!! Promalin (Gibberellin) can help protect buds prior to & post frost, to some extent

Pink – Early-May, depending on the year:

- Check weather station modeling for fireblight and scab, & plan treatment(s) accordingly [daily]
- Install codling moth traps [check weekly]
- Spray Solubor (Boron)

Bloom - Early-May to Late-May, depending on the year:

- Train young trees with limb spreaders
- Continue primary scab spray program
- Check Codling Moth traps [weekly]
- Continue checking weather station modeling for fireblight and scab, & plan treatment(s) accordingly [daily]
- Start Calcium sprays (strengthens bloom and fruit and prevents bitter pit) [every two weeks]
- Spray firerblight treatment if necessary [as recommended by forecasting & modeling]
- Scout the orchard looking for damage to leaves from scab [weekly]

Petal Fall through Fruitset & Early Covers – Late-May through June, depending on the year:

- Primary scab season complete scout orchard for damage to leaves from secondary scab [weekly]
- Check Codling Moth traps [weekly]
- Start Codling Moth management, according to modeling and traps
- Check orchard for fireblight [weekly]
- Remove fireblight-infected shoots
- Scout orchard for other pest problems (Aphids, Leaf Hoppers, Japanese Beetle, etc.) [weekly]
- Apply second application of Solubor (Boron)
- Spray chemical thinners, if necessary, depending on modeling & predicted fruitset
- Prepare hand thinning map (make trees with the most fruit and most prone to biennial bearing a priority) (continued on next page...)



- Start hand thinning remove fruit with pest damage from the orchard and burn, crush, or otherwise destroy
- Spray understory
- Start summer spray program (neem oil, karanja oil, & insecticidal soap) [every 7-10 days]
- Continue Calcium sprays [every two weeks]
- Tie new growth of young tree tops to support post
- Mow orchard [every 2-4 weeks, depending on growth conditions & orchard access needs]
- Continue understory management program
- Spray return bloom spray (Fruitone-N), if necessary

Summer – June/July/August, depending on the year:

- Prune water sprouts from older trees
- Prune and shape young trees
- Treat for Codling Moth, Plum Curculio, &/or other pests, if necessary
- Continue summer spray program [every 7-10 days]
- Continue Calcium spray [every two weeks]
- Install soil moisture gauges/tensiometers (one at 6" & one at 12" depths)
- Install irrigation for new planting
- Repair irrigation lines and replace broken emitters
- Start orchard irrigation schedule [typically provide at least 1" of soil moisture/week by irrigation or precipitation, based on soil moisture gauge/tensiometer readings]
- Send leaf tissue samples to lab to check nutrient levels (esp. Calcium and Boron) [Mid-June-Mid-July]
- Mow orchard [every 2-4 weeks, depending on growth conditions & orchard access needs]
- Prepare crop stop-drop spray maps (ReTain, Fruitone-N, Harvista, etc.)
- Prepare harvest equipment & lugs, as well as processing & storage area(s)
- Order additional boxes or lugs for anticipated crop harvest & storage
- Start crop stop-drop sprays prior to anticipated harvest [4 weeks out for ReTain, 7-14 days for Fruitone-N]

Harvest – August to Mid/Later-October:

- Continue crop stop-drop sprays prior to anticipated harvest [4 wks for ReTain, 7-14 days for Fruitone-N]
- Continue irrigating orchard according to soil moisture gauges/tensiometers [as necessary]
- Continue summer spray program [every 7-10 days]
- Continue Calcium sprays [every two weeks, depending on lab results]
- Start testing starch index and brix levels on fruit 2-3 weeks ahead of anticipated harvest
- Check weather predictions for wind and make weekly harvest plans accordingly
- Remove dropped fruit from understory [monthly, at least]
- Harvest and pack apples!!
- Record harvest (quantity and quality)

Winter Preparation – Mid/Later-October to Mid-December:

- Repair any damage to deer fence
- Bait deer fence with apple scent caps
- Check deer fence & repair as necessary [weekly]
- Replace broken trellis posts
- Install trellising posts for next year's tree planting
- Check & reset, or replace tree guards for each tree throughout orchard
- Remove dropped fruit from understory
- Paint tree bark of low chill hour tree varieties
- Mulch understory
- Winterize air-blast sprayer & other equipment
- Send weather station in for calibration [every two years]

2016 Orchard Task Outline' drawn on references from *The Apple Grower: A Guide for the Organic Orchardist* by Michael Phillips (Appendix I), *Midwest Fruit Pest Management Guide: 2016* produced by the Midwest Fruit Workers Group, *Michigan Fruit Management Guide: 2016* produced by Michigan State University Extension, & *The Penn State Tree Fruit Production Guide: 2014-2015* produced by Penn State's College of Agricultural Sciences