

Field Nursery Task Calendar

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The goal of this handout is to provide a timely reminder for management to use for planning purposes. Details will be provided in other handouts. Links will be provided.

Tasks preceded with * are expected to apply to all nursery operations.

The ♦ symbol indicates a handout is available.

Additional information is available by Linking to the Middle Tenn. Nursery Production Web site <http://www.utextension.utk.edu/mtnpi/index.html>

Many handouts on individual pests are available at <http://www.utextension.utk.edu/publications/default.htm>

Spraying pesticides when the temperature and humidity adds up to more than 140 increases the potential for foliar burn. Allow foliage to dry by dark.

UT Ext Pub. 1589, "Commercial Insect & Mite Control for Trees, Shrubs & Flowers" is available on-line. You may refer to the on-line version or print a free copy at <http://www.utextension.utk.edu/publications/pests/default.asp#ornamental>

Information concerning how to submit plant disease samples or insects for identification and a recommendation for a fee or how to use the Distance Diagnosis (submitting images of the problem, not an actual sample for free), visit <http://soilplantandpest.utk.edu/plantpestdiagnosis/index.htm> It also explains the fee schedule.

General

- * To prevent the spread of disease disinfect pruners and knives on a schedule for routine work, perhaps morning and after lunch. Some pruning tasks may require more frequent disinfecting.

- * Record and post all pesticide applications on the day of the application.

- * To prevent borers, use Dursban, Onyx or permethrin (Astro and others) or a one time drench with imidacloprid. Visit the link to learn when. [Link](#)
- * Determine if anyone in your area: county sanitation dept. or stores selling pesticides will recycle empty pesticide containers. In Warren County deliver clean, dry, triple rinsed plastic **pesticide containers** to the Sanitation Dept. at 1186 Belmont Dr. any Wed. 7:30am to 2pm. Drive to the back and look for several semi-trailers. They will also take used tires. Businesses but not farmers must pay a fee for the tires. Sanitation personnel will be present. 931-473-2505.

Oct – Nov

- * Possibly best period to **transplant** into field. Success will depend on available moisture and ability to irrigate if dry. Late Sept. can also be good.
- * **Spray pre-emergence herbicides** to prevent summer annuals. Apply to clean, freshly cultivated & hoed ground. This is the most important application of the year. Will remain clean until May 1.♦

Oct - March

- * **Harvest** bareroot and B&B plants.

Dec, Jan, Feb

- * Possibly 2nd best period to **transplant** into field.

mid Feb

Place Ambrosia beetle traps. Check 2x a week through March. ♦

Feb - March

Dormant oil will suffocate and disrupt cell membranes of the following pests:

[Link to handout on dormant oil](#)

the white cottony **pine bark adelgid** ([white pine](#)) [Link](#)

spider **mites**, rust mites, and eriophyid mites on ([hemlock](#), [juniper](#), [spruce](#), [arborvitae](#), and occasionally [burning bush](#)) [Link](#)

scale on ([Manhattan euonymus](#), [burning bush](#), lilac, etc.) [Link](#)

some types of overwintering eggs (the **spiny witch hazel leaf gall aphid** on [birch](#) and the **white pine aphid**) [Link](#)

oak phylloxera (that causes oak leaves to wad up in July)

Armored white peach tree scale on ash, mulberry, lilac, laurels and more
immature whiteflies; and broad mites.

(February through March is considered to be the most effective treatment period for outdoor plants with dormant oil. Choose days that the oil will dry quickly, but avoid temperatures above 85 degrees.)

- * **Major pruning**--Best period to perform major pruning. Begin earlier if task cannot be completed prior to April 1st. ♦
- * **Prune**--Establish central leaders in trees. Shape evergreens.
Shear Boxwood, Foster & other upright hollies. ♦
- * **Spray pre-emergence herbicides** to prevent summer annuals if not applied Oct-Nov. This is the 2nd most important time to apply, if not applied Oct-Nov. Apply to clean, freshly cultivated & hoed ground. ♦
- * Test irrigation water when reservoirs and ground water levels are up.

Kill green Ryegrass before it heads--Spray with Envoy Plus, Fusilade or Segment. ♦

Stick field-stuck cuttings.

Plum & cherry-- Black Knot; prune & remove. ♦

Apples--Graft

Feb - April

- * **Thistles**--Spot spray with Roundup.

Feb 15 to 30

- * **Fertilize**--Apply annual maintenance application. This is the most important time to sidedress if you plan to sidedress only 1x/year. ♦

March

- * Possibly 3rd best period to **transplant** into field. Success dependant on available moisture & ability to irrigate throughout summer. Later can be suicide without irrigation.

Dogwood--Plan frost protection for dogwood seedlings. Some types may be installed now. [Link](#)

Cut tops from dormant budded seedlings.

Pear--Cut callery pear tops from dormant budded seedlings.

Prepare to install gro-straights to avoid dog-leg.

Shade trees-- Cut back 1or 2 year old seedling shade trees to produce straight leaders.

- * **Replace filters** in respirators and tractor cabs (charcoal) for safer breathing during pesticide applications.

March, April

Drench **newly planted maple & oak** one time to prevent flatheaded apple tree borers (FHAB) and the potato leafhopper for 1-3 seasons, depending on rate used. Use imidacloprid. Alternative is trunk sprays mentioned below. [Link](#)

Plum– Black Knot; at bud swell, spray to prevent. ♦

ASAP after **Hail**, spray thiophanate methyl (Cleary's 3336) + chlorpyrifos (Dursban) as precaution.

Early April

Check Ambrosia beetle traps daily through April.

April

- * **Replace filters** in respirators and tractor cabs (charcoal) for safer breathing during pesticide applications.

Dogwood– Frost damage; Protect dogwood seedlings. [Link](#)

Dogwood– Damping-Off; Drench dogwood seedlings with thiophanate methyl (Cleary's 3336) + Subdue MAXX. ♦

Malus– Scab; spray susceptible cultivars 4+ times, at 7-14 day intervals, beginning at green tip.

Malus & Pyrus –Fireblight; Spray to prevent (Streptomycin at 20% bloom, repeat 5-7 day intervals during bloom.) Spraying after bloom is of no value. ♦

Plum– Black Knot; at pink bud, spray to prevent. Repeat at full bloom.

Red maple– Shoot Boring Caterpillar; Spray Talstar (bifenthrin) or Onyx Pro once, anytime from bud break to when the first two pair of leaves have come out (usually in mid-to late April). This is a change. [Link](#)

- * **Spray pre-emergence herbicides** to prevent summer annuals as a follow-up to the Oct-Nov application. This application is critical to maintain clean blocks. Strive to apply the 3rd or 4th week to prevent break through germination. (Do not spray what was sprayed in Feb-March.) ♦

April - Sept

Malus– Aphids; Scout & spray foliage.

- * **Summer Pruning** — Spray thiophanate methyl (Cleary's 3336, 20 fl. oz./100 gallons or 3.75 tsp./3 gal) onto tree trunks following major pruning or limbing up before wounds dry, to avoid possible infection by a canker pathogen. ♦

- * Avoid stress with timely irrigation. Waiting can cause cankers, borers, reduced growth and even death.

Mid April

Ash– Lilac borer & banded ash clearwing borer; Spray to protect. ♦

Mid April - Early May

Apple & crabapple—Cedar-Apple Rust♦; Cedar-Quince Rust ♦ on Hawthorne – spray susceptible cultivars 3-4 times, at 7-14 day intervals, beginning with new growth.

Late April

Dogwood– Dogwood borers; Wet trunks from 2 sides with hand-gun or backpack. Onyx Pro slightly better than Dursban in recent research. ♦

April, May

Plum– Black Knot; Spray 2 to 3 weeks after full bloom.

Scout **dogwood seedlings** & liners for spot anthracnose (crinkle leaf),

Callery pear seedlings and 1st year buds for Entomosporium leaf spot♦

Early May

Treat **maple & oak** to prevent flatheaded apple tree borers (FHAB). Spray trunks from 2 sides with recommended insecticides unless drenched with imidacloprid earlier. FHAB has now been proven to attack maples & oaks and cause significant losses during the first 3 years after being transplanted into the field or container, despite widespread belief among growers that borer attack is only an issue during the first growing season. See Borer handout. [Link](#)

May

Malus, Pyrus, plum, quince, spirea, serviceberry, pyracantha, hawthorne, mtn. ash– Scout for Fireblight. ♦

Scout **conifers** for mites♦,

crapemyrtle foliage for a leaf eating beetle♦,

maple, oak, & dogwood for leafhoppers* & thrips,

willows for leaf beetles,

tulip poplar for yellow poplar weevils

white pine for pine bark adelgids♦.

- * **Plant a sorghum-sudangrass hybrid** on vacant blocks to increase organic matter once incorporated.♦

May – July

- * **Treat** soil around plants to be shipped to Jap Beetle free areas after sprayer calibration by UT Extension personnel; application with TDA supervision. Marathon, Discus & Flagship are approved for use.

Dogwood–Powdery mildew; Begin spraying young dogwoods, buds and seedlings to prevent mildew. ♦

late May-early June

Bagworms: Spray to kill while small. ♦

June 1

Apple & crabapple 1st year plants -- Southern Blight; prevent with ProStar or Terraclor with coarse spray to lower stem & root zone. ProStar is curative. ♦

June

Scout untreated **Malus** for Southern Blight, **conifers** for bagworms, **oak** for oak phylloxera causing new foliage to wad up.

Peach– Bud.

Mid-June

Spray **newly planted maple & oak** to prevent flatheaded appletree borers if the imidacloprid drench was not applied. [Link](#)

June 15 to 30

* **Fertilize**–Apply the 2nd annual maintenance application, assuming the 1st application was applied in late Feb. or so. ♦

June 20-July 10

White pine– Prune, semi-prune or shear. ♦

June - Aug

* Spray Japanese beetle adults where necessary. Sevin XLR is more rainfast. The imidacloprid drench application made to prevent FHAB will control Japanese beetle adults but they must eat in order to ingest a fatal dose.

* Re-apply **pre-emergence herbicide** 90 days after previous application if rain is predicted because it will be lost without rainfall to activate it. Rely on Enviromist to maintain weed free status. Plan for fall or early winter application. ♦

* Mow **the sorghum-sudangrass hybrid** every time it gets waist high.

June - Sept.

* Clear blocks of remaining culls, soil test, collect nematode samples for peach, plow, and prepare for planting.

White Fringed Beetle adults, spray every 2 weeks. Keep borders mowed. ♦

July

- * **Plant nutrition**– Do not apply dry fertilizer after July 1. We do not wish to invite freeze injury if early freeze occurs. Liquid fertilizer applications may be made up until Sept. 15 without injury.

Scout **conifers** for bagworms & mites,
oaks for oak phylloxera causing new foliage to wad up,
red maples for leafhoppers causing hopper burn: short internodes, cupping, & marginal foliar burn. ♦

July 14

Apple & crabapple 1st year plants -- Southern Blight; 2nd application for maximum protection to high value crops. See June 1 above. ♦

July - Sept

Peach– Take soil samples to be tested for nematodes where peach seed will be planted. A portion can be sent for soil analysis.

- * **Soil test** a portion of the blocks to be planted next season. Can be done any time of year.
- * **Foliar burn** is more likely when the temperature + humidity exceeds 140 and when tank mixing more than 1 pesticide with liquid fertilizer. Two E.C. formulations (liquids) increase chance. Use 1 dry formulation if possible.

July - Sept

- * **Irrigate** as needed. Avoid unnecessary cultivation during drought that encourages moisture loss.

Fumigate propagation beds before soil temperatures drop, preparing for fall or spring sticking.

Peach– Fumigate blocks to be planted in peach seed.

Mid July

Dogwoods– dogwood borers; wet trunks from 2 sides with hand-gun or backpack. ♦

Ash– Lilac borer & banded ash clearwing borer; spray to prevent. ♦

August

- * **Pruning**– Avoid heavy pruning Aug - Oct because new growth may not have sufficient time to harden sufficiently to avoid cold injury from the first cold period.
- * Plow the **sorghum-sudangrass hybrid** under. Broadcast 2-300 lbs. 34-0-0 per acre to speed decomposition. ♦

Aug - Sept 15

Dogwood– Bud.

Pear– Bud.

Aug 15 - Sept 15

- * Drill **Crimson Red Clover** into row middles. Inoculate seed. Avoid small liners or 1st yr. buds. ♦
- * **Fescue** can be drilled into row middles for a permanent cover instead of clover, which is not permanent. ♦
- * **Roadways & waterways**– Use no-till drill to re-establish fescue.

Aug 15 – Nov 1

Drill wheat (or any small grain) into row middles to support traffic and reduce erosion. About 1.5-2 bu/acre of actual acreage planted. ♦

Sept

- * Spray to kill fescue & perennial weeds before plowing new blocks. Two split applications are generally more effective than one. ♦

Sept - Dec

- * **Spray pre-emergence herbicides** to prevent winter annuals, which are mostly Broadleaf weeds. 1.5 qt. Princep (Simazine) or Gallery are effective on the broadleaf weeds. Add Surflan, Pendulum or Barricade where ryegrass is a problem in spring. Apply to clean, freshly cultivated & hoed ground. Freshly germinated weed seed will not be killed. An application around Nov 1 will generally remain clean until May 1. ♦

Sept 15

- * Liquid fertilizer applications generally can be made up until Sept. 15 without injury.

Sept 15 - Oct

Dogwood – Pick or buy dogwood seed. Do not pick too early.

Bareroot Storage – Dig trenches on a slope to store bareroot outside.

Clean & disinfect bareroot storage facilities with bleach. ♦

Oct - Nov

Peach - Plant peach seed. ♦

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Oct - March

- * **Harvest** bareroot and B&B plants.

Nov

Dogwood – Plant dogwood seed. ♦

Root prune dormant, budded dogwood seedlings, prior to a rain. ♦

Bareroot Storage – Periodically clean, disinfect bareroot storage facilities, tables, tools with bleach; spray roots with thiophanate methyl (Cleary's 3336) as needed.

Nov 15 - 30

- * Gather & secure liquid pesticides to prevent freezing. Store dry formulations of pesticides in the dry.
- * Winterize irrigation systems, sprayer tanks & pumps.

Nov 15 - 30

- * Check, drain or replace antifreeze in all vehicles.

Late Nov - late Dec

Kerb is best applied now, if used.

Additional information available on web site: <http://www.utextension.utk.edu/mtnpi/index.html>
or from Mark Halcomb at mhalcomb@utk.edu

Comm/Field Prod/Field Task Calendar