

SPEAKER CONTACT SHEET – Ornamental & Turfgrass CIC 2021

1. **Notification Requirements and Sign Specifications for Commercial and Public Applicators in Iowa.** Jeni Lara (Jenifer.Lara@Iowaagriculture.gov, 515-281-8506) – Iowa Department of Agriculture and Land Stewardship, Pesticide Bureau
 - a. Urban Pesticide Application – Notification Requirements and Sign Specification for Commercial and Public Applicators in Iowa - <https://store.extension.iastate.edu/Product/3604>

2. **Rotary Fertilizer Calibration Basics.** Nick Christians (nchris@iastate.edu, 515-294-0036) and Adam Thoms (athoms@iastate.edu, 515-294-1957) – Iowa State University Department of Horticulture
 - a. Rotary spreader calibration - http://www.stma.org/sites/stma/files/EDigest/Rotary_Spread_Calib_Final.pdf
 - b. Learn the basics or spreader calibration - <https://www.gcsaa.tv/video/learn-basics-spreeder-calibration-excerpt-svw>
 - c. Calibration Example Math

28-0-3 Fertilizer – 28% Nitrogen by Weight

The intended application rate is 1 lb N/1,000 ft²

$$x(.28) = 1 \text{ lb } N$$

$$x = \frac{1}{.28}$$

X = 3.57 lb of fertilizer needed per 1,000 ft² to apply 1 lb N/1,000 ft²

$$\frac{3.57 \text{ lb fertilizer}}{1000 \text{ ft}^2} = \frac{x}{325 \text{ ft}^2 \text{ test strip area}}$$

$$1000x = 3.57 \times 325$$

$$1000x = 1160.25$$

$$x = \frac{1160.25}{1000}$$

X = 1.16 lb of fertilizer needs to be applied to the test strip area to achieve a rate of 1 lb N/1,000 ft²

- d. Economic Fertilizer Calibration Scenario – Fertilizer Cost \$41.69/50 lb bag

- a. **Normal Walking Speed**
 - i. Applied 1.16 lb of fertilizer to the test strip
 - ii. Applied 356.9 lb of fertilizer to 10 yards (100,000 ft²)
 - iii. Applicator needed 7.13 bags to complete the applications
 - iv. Total Application Cost = \$296.60
- b. **Slow Walking Speed**
 - i. Applied 2.27 lb of fertilizer to the test strip
 - ii. Applied 698.4 lb of fertilizer to 10 yards (100,000 ft²)
 - iii. Applicator needed 13.96 bags to complete the applications
 - iv. Total Application Cost = \$580.73
 - v. *This applicator applied the product over the intended rate resulting in more product needed and a higher cost of application. If this applicator was applying a pesticide product, it is likely they were applying above the labeled rate, which is against the law.*
- c. **Fast Walking Speed**
 - i. Applied 0.70 lb of fertilizer to the test strip
 - ii. Applied 215.4 lb of fertilizer to 10 yards (100,000 ft²)
 - iii. Applicator needed 4.3 bags to complete the applications
 - iv. Total Application Cost = \$178.88
 - v. *This applicator did not apply enough product to achieve the intended rate of application. If this applicator were applying a pesticide product, the application may not have been at a sufficient rate to effectively managed the pest issue.*

3. **Preventing Ornamental Damage from Lawn Pesticide Applications.** Matt Kruse (mkruse@ultralawn.com, 319-378-0386) - UltraLawn

- a. Pesticide Drift – Pesticide Environmental Stewardship - <https://pesticidestewardship.org/pesticide-drift/>
- b. Pesticide Drift – National Pesticide Safety Information Center - <http://npic.orst.edu/reg/drift.html#:~:text=Pesticide%20drift%20is%20the%20airborne,that%20can%20move%20off%2Dsite.>
- c. Types of Drift
 - a. Particle Drift
 - i. Liquid or dust physically moves off target and can be seen
 - ii. Usually occurs during or shortly following application
 - b. Vapor Drift or Volatilization

- i. Evaporates or turns into vapor and moves while it's invisible
 - ii. Can occur or continue to occur a day or 2 after application
 - d. How can you reduce instances of drift:
 - a. Read and follow all label directions – many pesticide labels will information on when to apply to avoid drift.
 - b. Keep the boom height low.
 - c. Avoid spraying during low humidity/high temperature periods which cause evaporation.
 - d. Improve droplet size by: using more carrier (water) per acre, reduce spray pressure, increase spray droplet size, check into improved spray nozzles.
- 4. **Pruning for Tree Health and Pest Prevention.** Jeff Iles (iles@iastate.edu, 515-294-3718) – Iowa State University Department of Horticulture
 - a. Pruning Trees: Shade, Flowering, and Conifer – Sustainable Urban Landscapes - <https://store.extension.iastate.edu/Product/6191>
 - b. Principles of Pruning: When and Why to Prune - <https://hortnews.extension.iastate.edu/2020/01/principles-pruning-part-1-when-and-why-prune>
 - c. Principles of Pruning: Making a Good Cut - <https://hortnews.extension.iastate.edu/2020/01/principles-pruning-part-2-making-good-cut>
 - d. Principles of Pruning: Included Bark - <https://hortnews.extension.iastate.edu/2020/01/principles-pruning-part-3-included-bark>
 - e. Overview of Oak Wilt - <https://hortnews.extension.iastate.edu/oak-wilt>
- 5. **Rose Management for Pest Prevention.** Cindy Haynes (chaynes@iastate.edu, 515-294-4006) – Iowa State University Department of Horticulture and Sarah Rummery (srummery@iastate.edu, 515-294-0305) – Remain Gardens at Iowa State University
 - a. Cultural Practices to Prevent Pest Issues in Roses
 - a. Selection of disease resistance cultivars at planting.
 - b. Cover roses if needed during the winter time, keeping in mind cover too early can result in increased disease pressures.
 - c. Properly cutting back the roses.
 - d. Ensure proper fertilization during the spring to increase overall plant vigor.
 - e. Proper dead heading.
 - f. Regular spray maintenance for insects and diseases.
 - g. Mulching to reduce splash back on the roses as well as reduce weed pressures.
 - b. Diseases Discussed in Today's Program
 - a. Black Spot - <https://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/advice-tips-resources/pests-and-problems/diseases/fungal-spots/black-spot.aspx>
 - b. Powdery Mildew - <https://ipm.illinois.edu/diseases/rpds/611.pdf>
 - c. Insect Problems Discussed in Today's Program
 - a. Japanese Beetles - <https://hortnews.extension.iastate.edu/japanese-beetle>

- b. Thrips - <https://entomology.ces.ncsu.edu/thrips-2/>
- d. Avoid pesticide applications to roses during heavy pollination periods to protect bees and pollinators
- e. Keys to Rose Management
 - a. Select the right rose
 - b. Maintain proper cultural practices
 - c. Manage insects and diseases through timely pesticide applications

6. **Commercial Pesticide Applicator Insect Update.** Donald Lewis (drlewis@iastate.edu, 515-294-1101) – Iowa State University Department of Entomology

- a. Spotted Latern Fly - http://iowatreepests.com/slf_home.html
- b. Asian Longhorned Beetle
 - i. What and Where is the Asian Longhorned Beetle - http://iowatreepests.com/alb_home.html
 - ii. How to Identify the Asian Longhorned Beetle - http://iowatreepests.com/alb_identify.html
 - iii. Asian Longhorned Beetle – Tree Symptoms - http://iowatreepests.com/alb_symptoms.html
- c. Brown Marmorated Stink Bug - <https://hortnews.extension.iastate.edu/brown-marmorated-stink-bug>
- d. Japanese Beetle - <https://hortnews.extension.iastate.edu/japanese-beetle>
 - i. Japanese Adult Beetle Controls
 - 1. Tolerate the damage
 - 2. Screening and Handpicking
 - 3. Spray early and often (nothing will work in a single application for adult Japanese Beetles)
 - a. Pyrethroids
 - i. Deltamethrin, cyfluthrin, bifenthrin
 - ii. Knockdown and residual activity even without full coverage
 - b. Carbaryl
 - i. Good knockdown and residual activity
 - c. Antifeedants
 - i. Azadirachtin
 - ii. Kaolin clay (Surround)
 - d. Bioinsecticides
 - i. Pyola – short term protection
 - ii. beetkeGone Bt-g
 - ii. Annual White Grub Insecticide Treatment

1. Preventative Applications Mid-May through Early-August
 - a. Chlorantraniliprole: Acelepryn & Scott's Grub-X
 - b. Clothianidin: Arena
 - c. Cyantraniliprole: Ference, Mainspring GNL
 - d. Dinotefuran: Zylam
 - e. Imidacloprid: Merit, Zenith, etc.
 - f. Thiamethoxam: Meridian
 - g. *Bacillus thuringiensis galleriae*: GrubGONE G
 2. Curative Controls Early August through September
 - a. Trichlorfon – Dylox
 - b. Carabryl – Sevin
 - c. Clothianidin – Arena
 - d. Thiamethoxam – Meridian, etc.
 - e. Chlorantraniliprole – Acelepryn
 - f. Cyantraniliprole – Ference, Mainspring
 - e. Funnel-web spiders – Fall gossamer - <https://www.desmoinesregister.com/story/weather/2020/11/06/baby-spider-web-hatching-results-iowa-outdoors-covered-gossamer/6191082002/>
 - f. Minute Pirate Bugs - <https://hortnews.extension.iastate.edu/2017/10/minute-pirate-bugs-are-biting-argh>
7. **Turfgrass Herbicide Update.** Adam Thoms (athoms@iastate.edu, 515-294-1957) – Iowa State University Department of Horticulture
- a. Post Emergent Controls for Crabgrass - <https://extension.psu.edu/postemergence-control-of-crabgrass-and-other-summer-annual-grasses-in-lawns>
 - b. Post Emergent Controls for Crabgrass - <http://ipm.ucanr.edu/PMG/PESTNOTES/pn7456.html>
 - c. Drive XLR8 (Quinclorac) - <https://betterturf.basf.us/products/drive--xlr8-herbicide.html>
 - d. Identifying Crabgrass vs. Goosrgrass - <https://njaes.rutgers.edu/fs1309/>
 - e. Pylex (Topramezone) - <https://betterturf.basf.us/products/pylex--herbicide.html>
 - f. Nimble Identification - <https://turf.purdue.edu/nimblewill/>
 - g. Tenacity (Mesotrione) - <https://www.greencastonline.com/labels/tenacity>
 - h. Crew Specialty Herbicide - <https://www.corteva.us/products-and-solutions/turf-and-ornamental/crew.html>
 - i. GameOn Specialty Herbicide - <https://www.corteva.us/products-and-solutions/turf-and-ornamental/gameon.html>
 - j. Sure Power Herbicide - <https://nufarm.com/usturf/product/surepower/>