Lawns
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Primary Cultural Practices
1. Mowing
2. Fertilizing
3. Irrigation

Lawns
- Primary Cultural Practices
  - Mowing
  - Fertilization
  - Irrigation
- Cultivation and inter-seeding
  - Management of...
    - False dandelion
    - White clover
Primary Cultural Practices

MOWING
Mowing

- The one-third rule
  - Prevent scalping
  - Scalping...
    - Causes a brown appearance
    - Stops growth and development
    - Depletes carbohydrates
    - Makes turf susceptible to environmental stress

- Raise your mowing height
  - Adhere to the one-third rule
  - Improve rooting
Mowing
- Raise your mowing height
- Prevent weed seed germination

- Raising the height from 1.5” to 3.0”
  - Improved turfgrass quality
  - Reduced weed populations
  - Crabgrass cover by up to 52%
  - Dandelion populations by up to 45%
  - White clover by up to 58%

Mowing
- Increase your mowing frequency
- Adhere to the one-third rule
- Increase turfgrass density
- Weed control
  - Lambsquarters
  - Ragweed
  - Purslane
  - Garlic mustard

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Mowing
- Weeds that indicate your mowing height is too low...
  - Annual bluegrass
  - Crabgrass
  - Dandelion

- Annual bluegrass
- Crabgrass
- Dandelion
MOWING

FERTILIZATION

Fertilization

- Select a fertilizer designed for turfgrass
  - Primary nutrient (N-P-K)
    - High N
    - Low P
    - 10:1

The holiday plan

- Memorial day
  - 1.0-1.5 lbs N 1000 ft²
- 4th of July
  - 0.5-1.0 lbs N 1000 ft²
- Labor day
  - 0.5-1.0 lbs N 1000 ft²
- Thanksgiving
  - 1.0-1.5 lbs 1000 ft²
Fertilization

- The holiday plan
  - Cool-season turfgrass species
    - Kentucky bluegrass
    - Perennial ryegrass
    - Fine fescue
    - Tall fescue

- Low fertility weeds include...
  - White clover
  - Plantain
  - Black medic

Irrigation

- Adjust your rates with the seasons
  - Spring: 0.0-0.75 inch week
  - Summer: 0.75-1.5 inch week
  - Fall: 0.0-0.75 inch week
Irrigation

- Check your rates
  - 20 minutes
  - 0.1 inch
  - 0.25 inch
  - 0.5 inch

OSU Turf Program

- Conner Olsen – M.S. Candidate

  - ¼” applied 4 x week
  - 1” applied once a week

September 1, 2016. The left photo is ¼” applied 4 x per week, and the right photo is 1” applied once a week starting July 4, 2016.

Irrigation

- Twice as much is not twice as good
- Moss

- Increased disease incidence

- Dollar spot
- Pythium blight
- Brown patch

Irrigation

- Twice as much is not twice as good
  - Leaching pesticides and fertilizers
  - Waste of water and money
Weeds associated with drought conditions...
- Summer annuals
  - Knotweed
  - Wood sorrel
  - Crabgrass

Weeds associated with over irrigation...
- Annual bluegrass
- Rough bluegrass

IRRIGATION

MARCH 31 – MOWED DAILY

AUG 21 – MOWED DAILY

CULTIVATION & INTER-SEEDING
Cultivation

- What is your objective when cultivating the turfgrass?

Cultivation

- Objectives
  - Relieve compaction
  - Improves gas exchange and drainage
  - Remove organic matter
  - Decreases potential for disease
  - Prepare for seeding
  - Ensures seed to soil contact

Cultivation

- Annual weeds
  - Pre-emergent herbicides
    - Non-selective
      - Pendulum (a.i. pendimethalin)
        - $54/54,000 sq ft
    - Selective
      - Tupersan (a.i. isoxadifen)
      - Tenacity (a.i. mesotrione)
        - $98/54,000 sq ft
  - Inter-seeding
    - $1,440/54,000 sq ft
    - 600 lbs

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Cultivation

- Cool-season turfgrass
- Warm-season turfgrass

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- Warm-season turfgrass
Cultivation

- **Annual weeds**
  - Pre-emergent herbicides
    - Non-selective
      - Pendulum (a.i. pendimethalin)
        - $54/54,000 sq ft
    - Selective
      - Tupersan (a.i. siduron)
    - Inter-seeding
      -  $1,440/54,000 sq ft
      - 600 lbs

- **Pre-emergent herbicide. Applied in the spring. No inter-seeding.**

- **Knotweed – Summer annual**

- **Fall – After 1st frost**

Cultivation & Inter-Seeding

Weed Management

- Common turf weeds...
  - 1. false dandelion
  - 2. white clover

- **FALSE DANDELION**
False dandelion
- Scouting and ID
  - Perennial weed
  - Spring seeding
  - Drought tolerant

False dandelion
- Post emergence herbicides (curative)
  - 3-way broadleaf herbicide
    - Trimec Classic
      - 2,4-D
      - MCPP
      - Dicamba

False dandelion
- Apply in the fall (October 4 = 10/4 Good Buddy)

False dandelion
- Follow up applications...
  - Apply and then apply again 2-4 weeks later
**False Dandelion**

- Perennial weed
- Nitrogen deficient soil
- White flower
- Circular leaves

**White Clover**

- Post emergence herbicides (curative)
  - Triclopyr
    - Weed B Gone Chickweed...
    - Triclopyr and 2,4-D
  - T Zone
    - Triclopyr
    - Sulfentrazone
    - 2,4-D
    - Dicamba

- Apply in the fall (October 4 = 10/4 Good Buddy)
- Apply and then apply again 2-4 weeks later
WHITE CLOVER