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How do we Manage the
Turfgrasses in Warm Season
Climates?

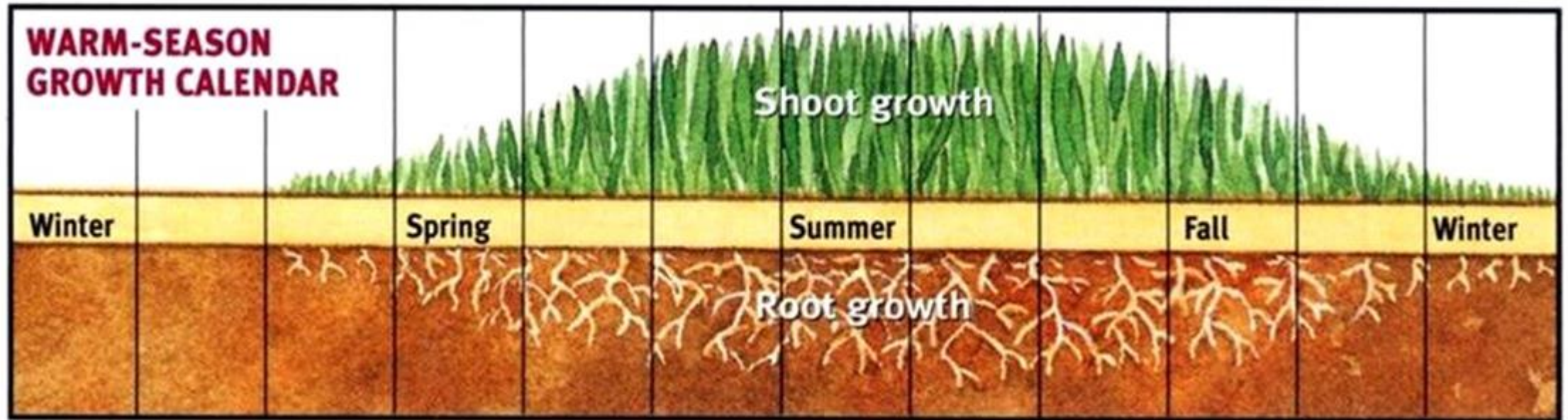


Turfgrass Cultural Practices

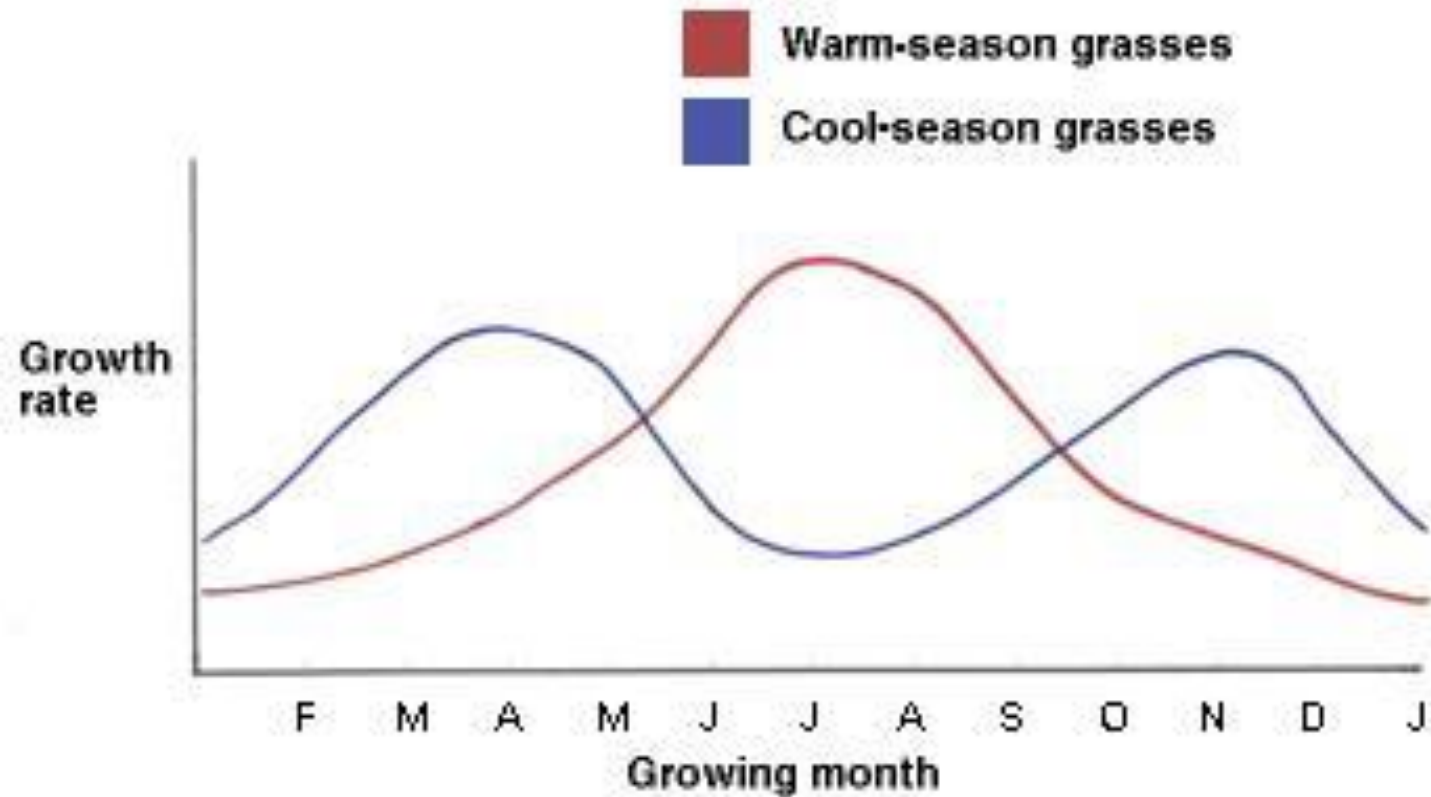
- Mowing
- Fertilization
- Irrigation
- Cultivation (Aerification, verticutting)
- Pest Control



Warm-Season Grass Growth Calendar



Warm-Season Grass Growth Calendar



Soil Testing

- Performed to Estimate Plants Nutrient Requirements
- Soil Tests Have Traditionally Been Used to Determine Soil pH, Phosphorus, and Potassium Requirements
- One Can Also Test for Any Other Soil Nutrient

Fertilization

- **Bermudagrass: 0.75-1 lb. nitrogen/1000 sq. ft./growing month (36-48 kg N /ha/growing month)**
- **Bahiagrass: 2-3 lb. nitrogen/1000 sq. ft./year (96-144 kg N/ha/year)**
- **Fertilization for warm-season grasses occurs during the growing season (in Southern USA late spring-early autumn)**

Fertilization

- **“Water Insoluble” and “slow release” nitrogen provides a longer lasting feeding**
 - **Sulfur-coated urea**
 - **Polymer-coated urea**
 - **Urea formaldehyde (methylene urea)**

Mowing

- **“One-third” rule as a guideline for mowing frequency**
- **Sharpen (replace) blades on a regular basis**
- **Mowing heights – Higher mowing heights will provide better wear tolerance and better rooting**
- **Try to mow at the highest height that will advocate for healthy grass, good footing, and “playability”/performance.**

Mowing

- **Try to mow at the highest height that will advocate for healthy grass, good footing, and “playability”/ performance.**
- **Sideways adjustable deck mowers can help reduce “tracking”/”rutting” near rails.**

Mowing



Mowing Quality



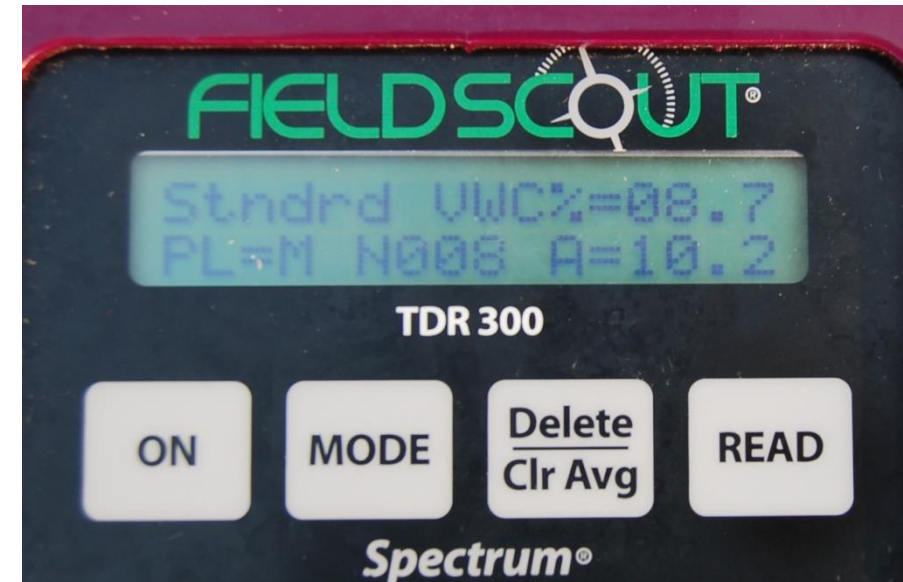
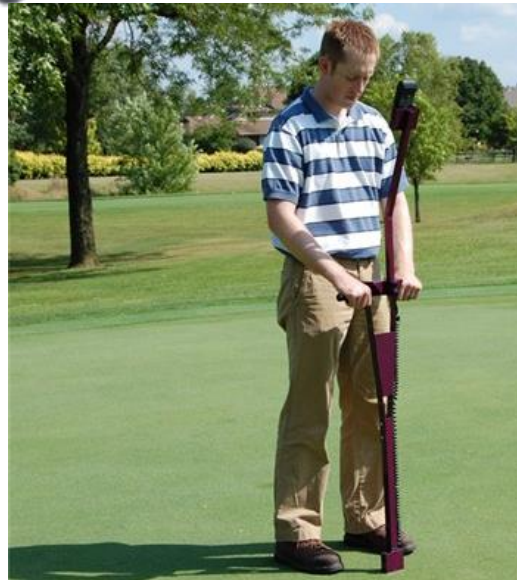
Mowing Quality



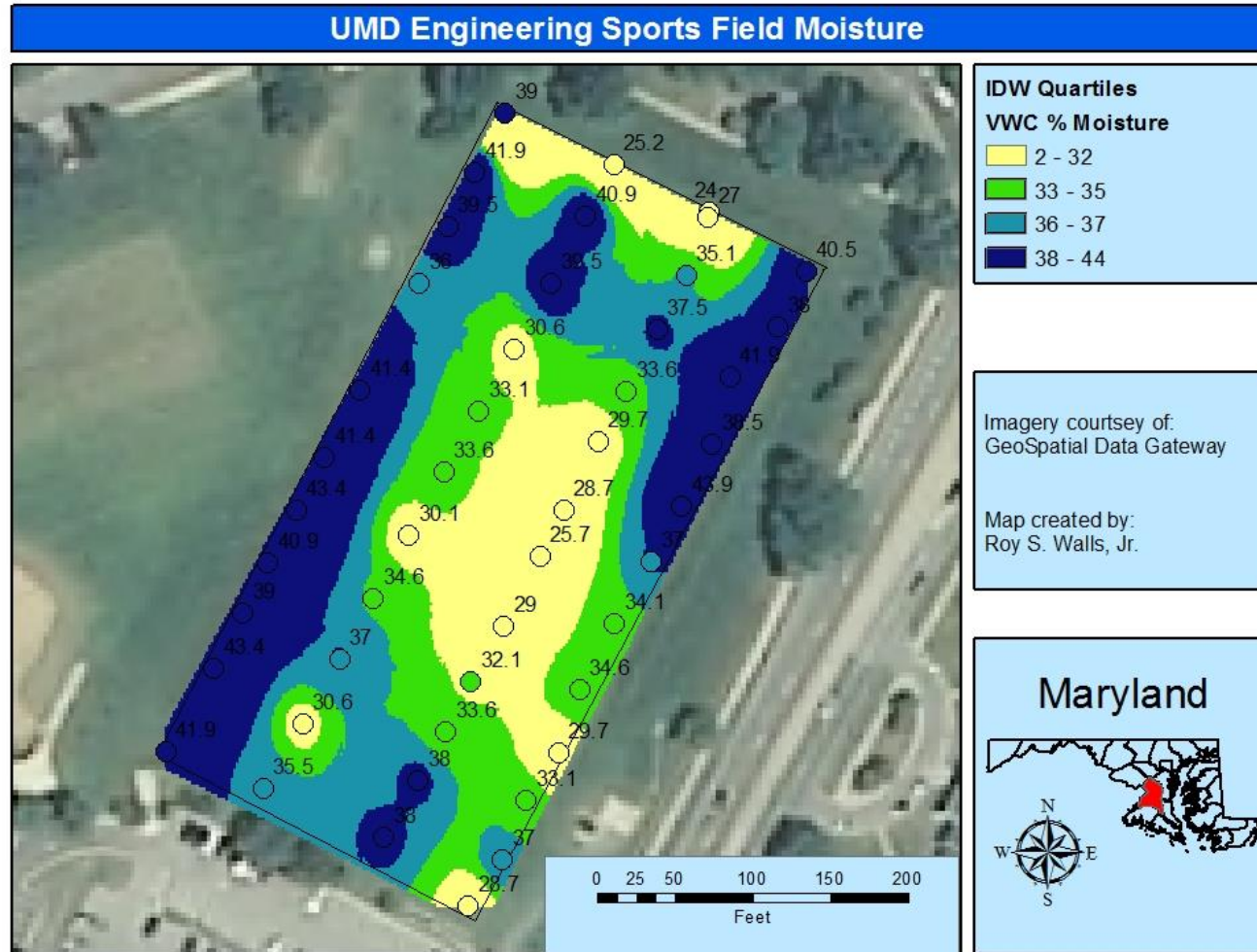
Irrigation

- Consistent Coverage
- Precipitation Rate
- Guideline Tools:
 - Moisture Meter
 - Evapotranspiration losses
 - ($ET_0 \times 0.6$ is a good guideline for warm-season grasses)

Moisture Meters and Uniformity

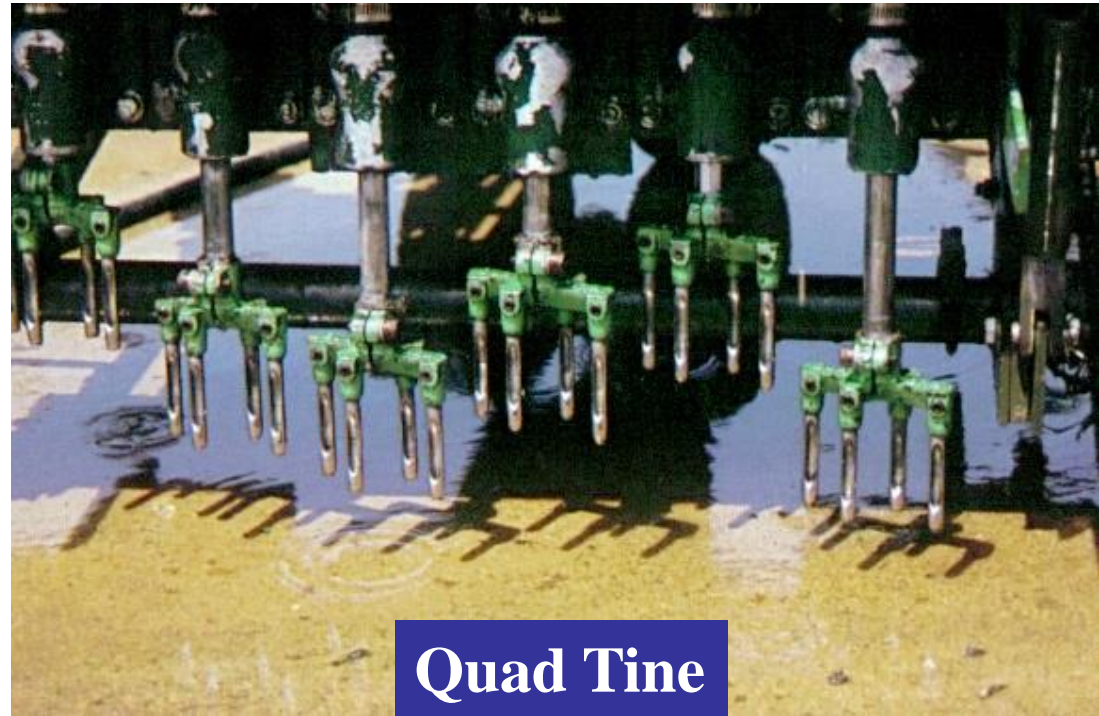
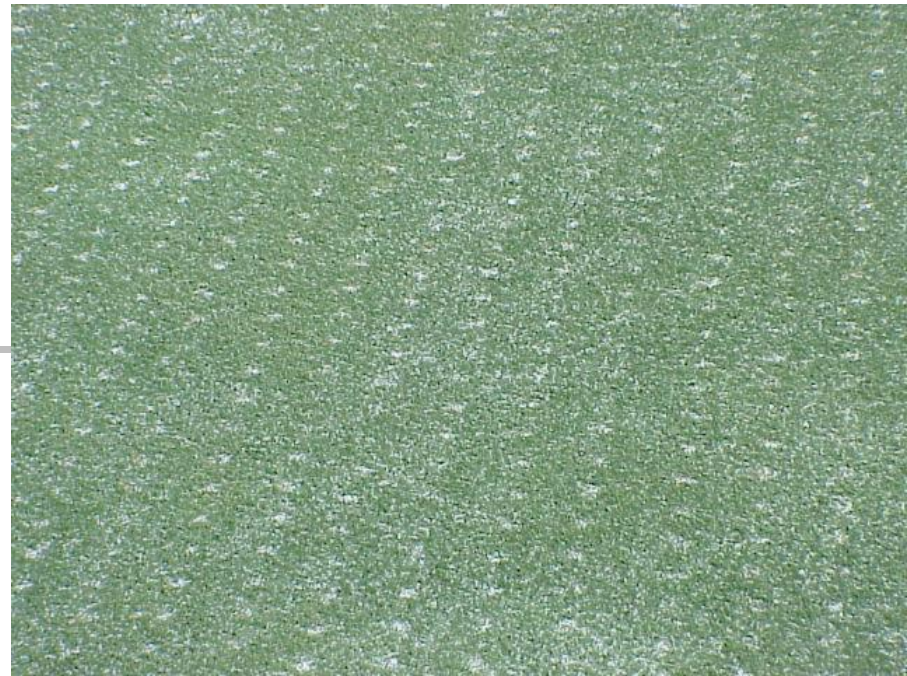


Uniformity



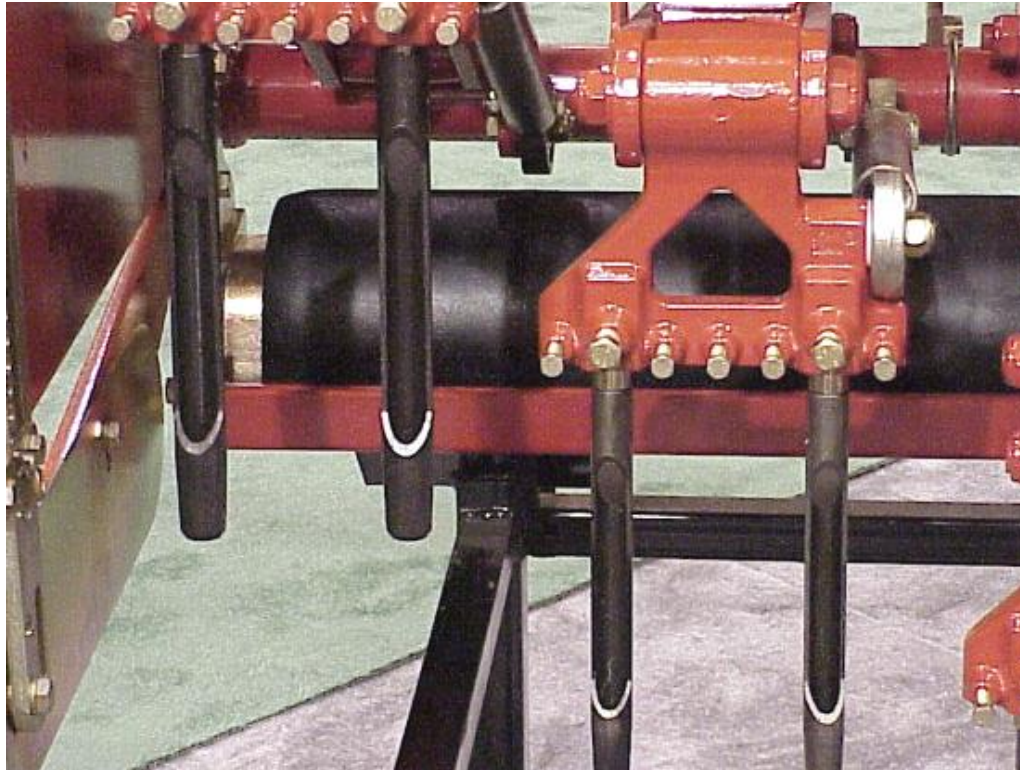
HOLLOW TINE CULTIVATION

- Different tine configurations available
- Often Performed in Summer for Warm-Season Grasses
- Perform during periods of adequate recovery



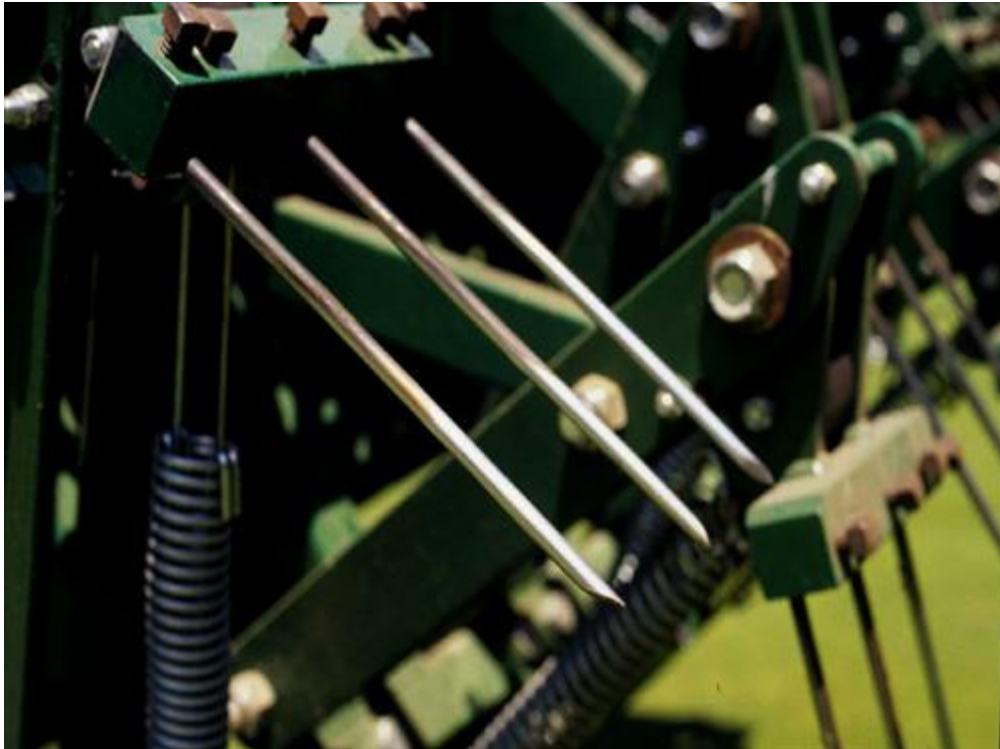
Quad Tine

DEEP TINE CULTIVATION



- **Allow for Cultivation to Depths of 8 to 16 Inches**
- **Attempt to Modify Existing Soil**
- **Control Development of a Cultivation Pan**

Deep Tine Cultivation



Cultivation -- Verticutting (Vertical Mowing)



Cultivation -- Verticutting (Vertical Mowing)



Thank You!

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