



Overseeding Species: Best Choices for Success

JACKLIN[®]
S E E D
by **Simplot**



Athletic Field Quality and Bare Ground

- Player's perception of the quality of a field is related to the amount of grass cover (





Athletic Fields and Overseeding

- Overseeding is the process of adding seed into an existing turfgrass sward
- Why Overseed?
 - Introduces desirable seed into the turf community
 - Fills in bare or weak stands of turf
 - Desirable species can then out-compete weeds in the community





Athletic Fields and Overseeding

- Cool-Season sports fields:
 - Overseeding used to maintain turfgrass coverage throughout play season
- Species Choice
- Timing of Overseeding
 - Frequency
 - Seeding rates





Species Choice

- The ‘Ideal” Overseeding Species:
 1. Quick germination time
 2. Inexpensive seed
 3. Seedlings have moderate wear tolerance
 4. Persistence in the sward





Species Choice

1. Perennial Ryegrass *
1. Kentucky Bluegrass
3. Tall Fescue
3. Supina Bluegrass
4. Creeping Bentgrass
5. Fine Fescue

*Minner and Valverde, 2005



Timing of Overseeding

Two Schools of Thought:

1. Fill-in during pre-season for best results
2. Frequent small overseeding events all season long





Timing of Overseeding

- Primary Consideration:
 - Duration of play season
 - Weather conditions of the play season





Timing of Overseeding

- Primary Consideration:
 - Duration of play season
 - **Full season (spring to fall)**
 - **Fall Football Season**
 - Weather conditions of the play season
 - **Full Season = ideal growing conditions**
 - **Fall Season = short window of growing conditions**



Full Season play

- ✓ Perennial ryegrass performs better as an overseeding species when compared to KBG^{1,2,3}
- ✓ Frequent overseeding events
- ✓ Higher the seeding rate the better

1. Elford et al., 2008
2. Minner and Valverde, 2008
3. Rossi, 2004





Overseeding on Pesticide-Free Sports Fields in Southern Ontario Canada

➤ Overseeding Frequency:

- Perennial ryegrass seeded at 6g m⁻² in a one time spring overseeding event

Vs.

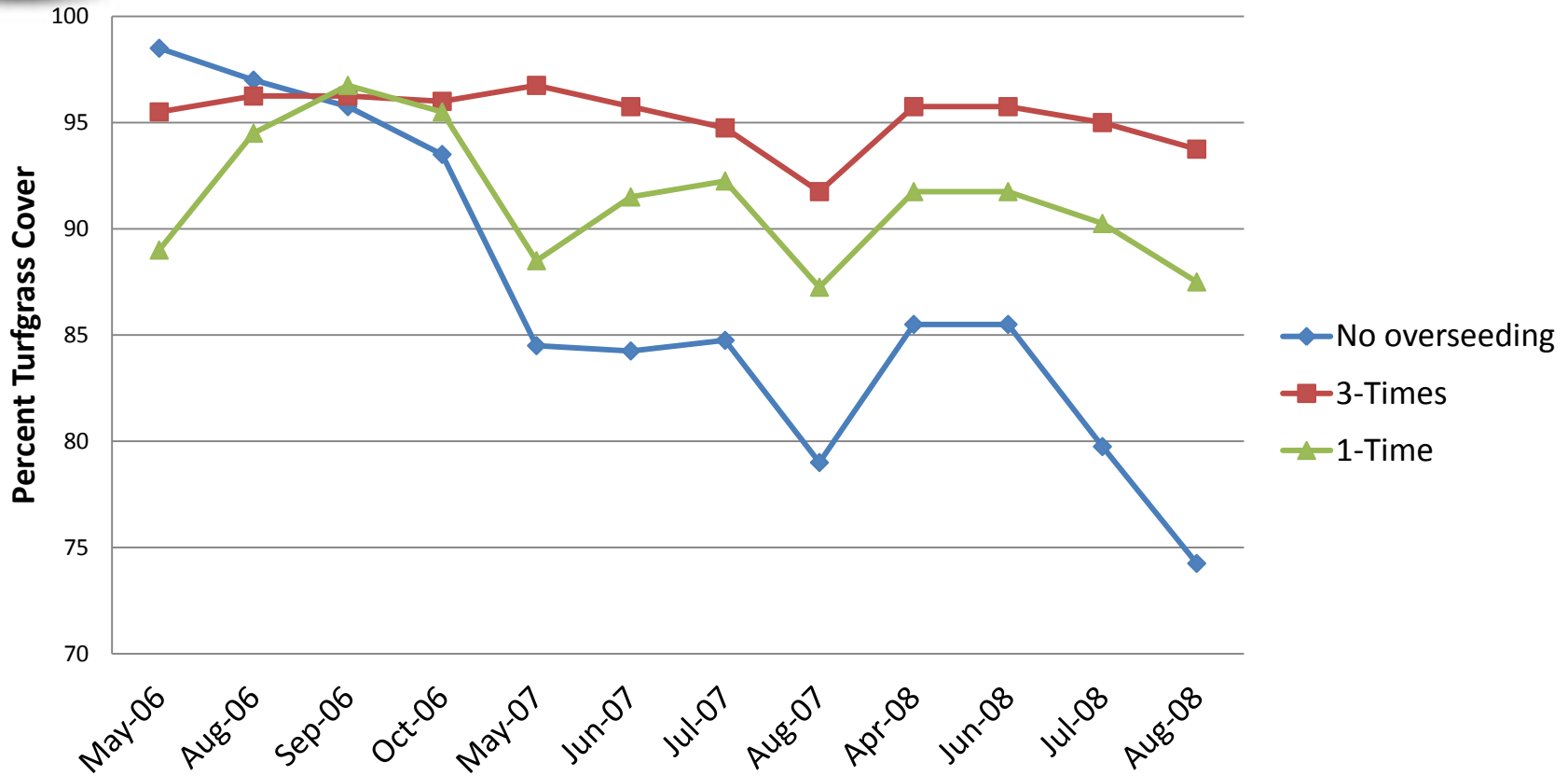
- Perennial ryegrass seeded at 2g m⁻² three times during the growing season





Overseeding Frequency

Perennial ryegrass Overseeding



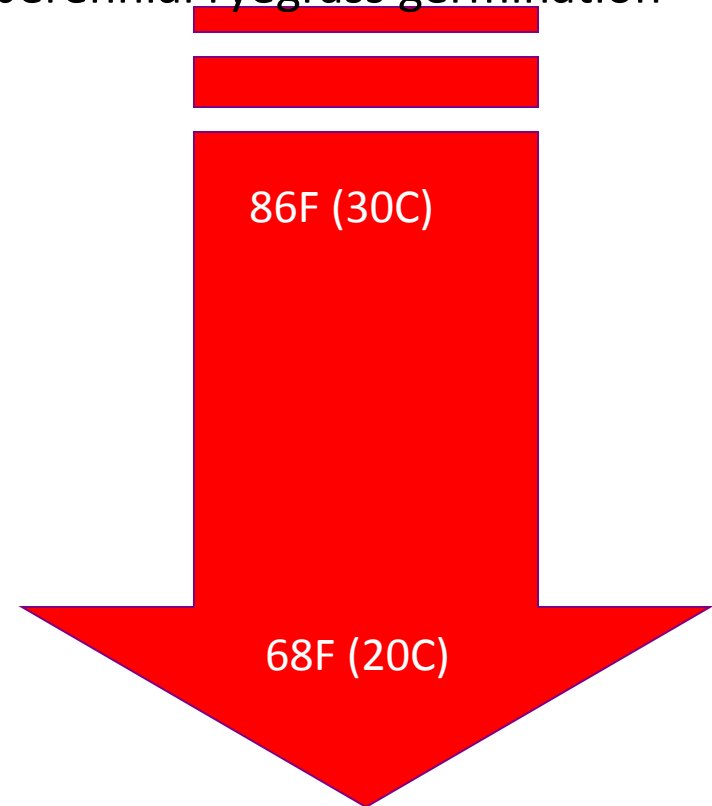
- Seeding Rate of 6g/m² Seed each Spring vs. 3-times with a seeding rate of 2g/m² per seeding event (6g total each growing season)
- All plots that received seed had a total seeding rate of 18g/m² by the end of the study



Overseeding for Fall Seasonal play:

➤ Applying all the seed during ideal soil temp = conducive for seedling germination¹.

Ideal Soil Temperatures for perennial ryegrass germination



1. Minner and Valverde (2008); and Hoiberg (2009)
2. Hoiberg and Minner (2012)





Overseeding Rate

➤ Seeding rates investigated:

- Minner et al. (2008) examined seeding rates between:
 - Kentucky bluegrass: 5 – 35 gm⁻²
 - Perennial ryegrass: 7-175 gm⁻²
- The higher the seeding rate the greater the turf coverage





Overseeding on Pesticide-Free Sports Fields in Southern Ontario Canada

➤ Overseeding Frequency:

- Perennial ryegrass seeded at 6g m^{-2} in a one time spring overseeding event

Vs.

- Perennial ryegrass seeded at 2g m^{-2} three times during the growing season

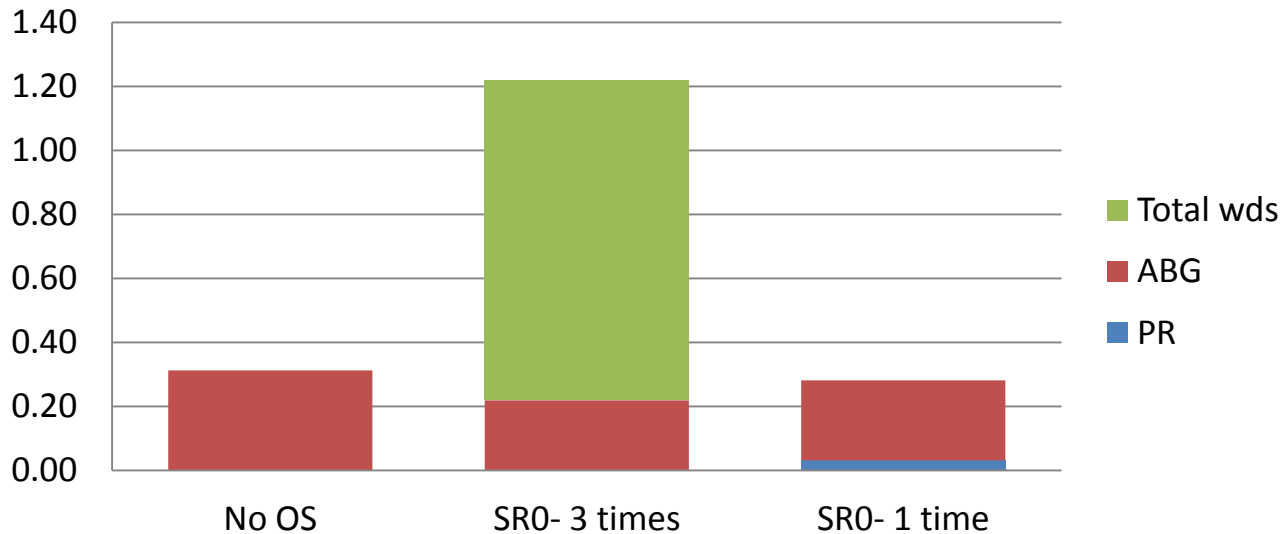
➤ Fate of Seed in the Seedbank





Seed-banking Ability?

Mean No. of Plants in Seedbank after 2 Years of Overseeding



- Almost no perennial ryegrass plants were recruited from the seedbank after 2 years of overseeding



Take Home Message:

- Overseeding is a viable option on cool-season athletic fields for the purpose of maintaining turfgrass coverage
- The higher the seeding rate the greater the turfgrass cover
- Adding seed several times during the growing season is better for fields that are under constant wear during the entire growing season



Take Home Message:

- For football only fields due to the high amount of wear in the fall, it is best to have a large overseeding event in September
- Perennial ryegrass seed has a low recruitment rate in the seedbank therefore be sure to time your seeding events for when the optimal conditions for germination exist





Thank you for
your time.

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