

Herbicide Usage to Establish and Maintain Native Grasses

Gatlin Bunton

Overview

- **Herbicide Strategies for Establishing Native Grasses**
 - Spray-Smother-Spray
 - Stale Bedding
 - Single Spray
 - Cropping
- **Issues with existing vegetation**
 - Tall fescue case study
- **Herbicides for Establishing and Maintaining Native Grass**
 - Glyphosate
 - Plateau
 - Outrider
 - Growth regulators
 - Grass specific
- **Putting it all together**

Spray-Smother-Spray

- **Useful tool when renovating established pastures**
- **Spray 32-64 oz/ac glyphosate to kill existing vegetation**
- **No-till drill a “Smother” crop**
- **Graze or hay the smother crop**
- **Spray with glyphosate again**
- **Repeat as needed**



Two Year Approach to the Spray-Smother-Spray Method

- **Spray** existing vegetation when small (6" or less)
- No-till smother crop (soybeans, sudangrass)
- **Spray** crop and any emerged weeds in mid to late September
- No-till small grain and allow to overwinter
- **Spray** again after jointing (April 1st)
- **Establish native species**
 - Alter timeline as needed for dormant seedings

Stale Bedding

- Expending the seed bank the year prior
- Useful for planting like species (cool season)
- Spray glyphosate and other non-residual herbicides as needed throughout the growing season
- Tillage can help promote more germination
- Establish desired species normally



Single spray method

- **Use multiple modes of action to achieve control**
- **64 oz/ac glyphosate + 2-12 oz/ac imazapic (Plateau)**
 - Dependent on species
 - Big bluestem, little bluestem, Indiangrass = 2-12oz
 - Do not exceed 12 oz per acre per year
 - Other species have lower rates or injury should be expected
- **Provides *SOME* residual control of fescue seedlings**

Cropping

- Planting native grass following row crops can be a great way to avoid unwanted weeds
- On certain acres, converting to row crop for a few years can be a productive way to convert existing vegetation – it pays for the herbicide
- Not right for every acre
- Avoid tillage if possible
- Roundup Ready crops



Other vegetation issues

- **Fescue plagues most species in the Midwest and mid-south**
- **Bromus spp. can cause many other issues**
- **Expending the seed bank first usually works best regardless of species**

Killing Tall Fescue

A Case Study

- **“It’ll grow anywhere and you can graze it as low as they can eat.” – makes it a great weed**
- **Tall fescue is our biggest weed when converting and maintaining native grass / forbs in MO**
- **Soil seed bank is full of fescue seed if coming out of tall fescue sod**

Mixed Results

64 oz / acre glyphosate applied August 30th



September 25th, 2020



June 14th, 2021

Herbicides for Establishing and Maintaining Native Grass

- **Glyphosate**
- **Plateau**
- **Outrider**
- **Growth regulators**
- **Grass specific**

Herbicide Choices

- **Establishment**

- Glyphosate (**Pre Emerge**)
- Plateau
- 2,4-D
- Atrazine (certain grass species only)
- Other Pasture Herbicides (**Be Mindful of planting restrictions –Read the Label**)

- **Maintenance**

- 2,4-D
- Plateau
- Remedy
- GrazonNext
- Outrider
- Glyphosate (**Dormant or spot spray only**)
- Select / Poast (Forbes or **Dormant or spot spray only**)

ALWAYS READ AND FOLLOW THE LABEL!!!

Glyphosate

- Sold under many names—Roundup, Buccaneer, etc
- Non-selective, will kill any actively growing plant
- Use before seedling emergence to kill existing undesired vegetation
- Can be used as a spot spray for invasives
- Winter broadcasts can be effective in pure warm season plantings – **desired species must be completely dormant**

Plateau (imazapic) and generics

- **Group 2 herbicide (be mindful of resistance)**
- **Excellent tolerance of many NSWG species and some forbs**
- **Many introduced species have poor tolerance**
 - Fescue has poor tolerance, crabgrass and johnsongrass are suppressed when applied PRE
- **Can be used pre and post**
- **Be mindful of what is in the seeding**
 - Switchgrass / eastern gamagrass will have some injury
 - Native brome species have poor tolerance although smooth brome is on label



Outrider

- **Sulfosulfuron**
- **Labeled in Warm season pasture grasses**
- **Can provide partial control of smooth brome in grass plantings**
- **Useful to control johnsongrass in NWSG**
- **Control or suppression of tall fescue can be achieved with higher rates**
- **Test small areas first to make sure ecotype / cultivar is tolerant**

The logo for Outrider herbicide, featuring the word "OUTRIDER" in a stylized, italicized font with a green-to-blue gradient and a shadow effect. Below it, the text "Herbicide by Monsanto" is written in a smaller, black font.

OUTRIDER[®]
Herbicide by Monsanto

Growth Regulator herbicides

- **Many examples, most pasture herbicides**
- **2,4-D, Remedy (triclopyr), Tordon 22K**
- **Consider any volunteer forbs of value**
- **Used to control broadleaf and woody vegetation**
- **Can be used in season in grasses (label dependent)**
- **Aminopyralid (Milestone / Grazon products / Duracor) can cause aborted seeds in many grasses**
- **Can be included preplant**
 - check label, 2,4-D / Dicamba have shortest replant restriction

Grass Specific Herbicides

- **Clethodim (Selectmax, others)**
- **Sethoxydim (Poast, Segment –wildflower label)**
- **Grass herbicides**
- **Use preplant with glyphosate for grass control**
- **Has a slight residual effect – will kill grass seedlings if planted too early after application**
 - This can be of use in forb / legume plantings
- **Can be used as a dormant spot spray**

Herbicide Usage

- **Broadcast sprays are usually the most effective when converting**
- **Spot sprays are very important to maintain a stand**
- **Many sprayer options available**
 - Hand held / backpack
 - Tractor pull type or 3 point
- **Take into account any other beneficial forbs**



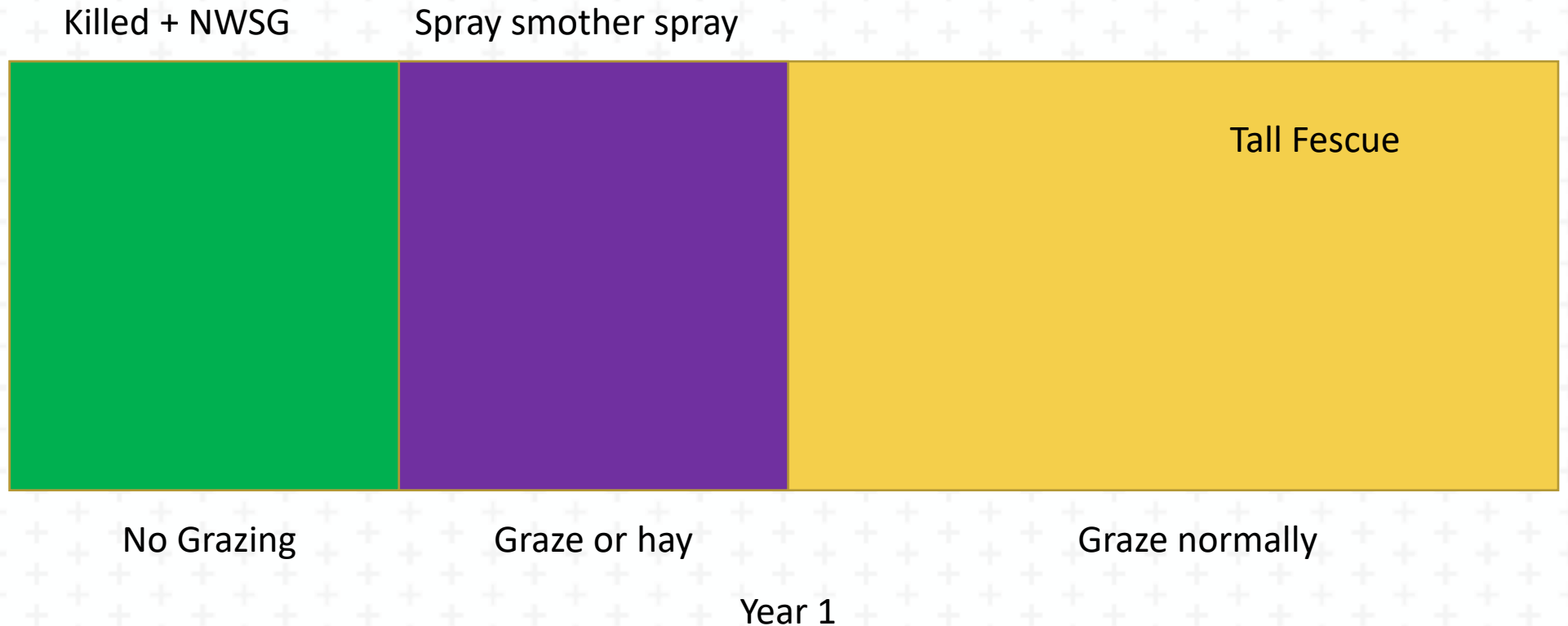
Putting it all together

- “I can’t have that much land out of production.”

Tall Fescue

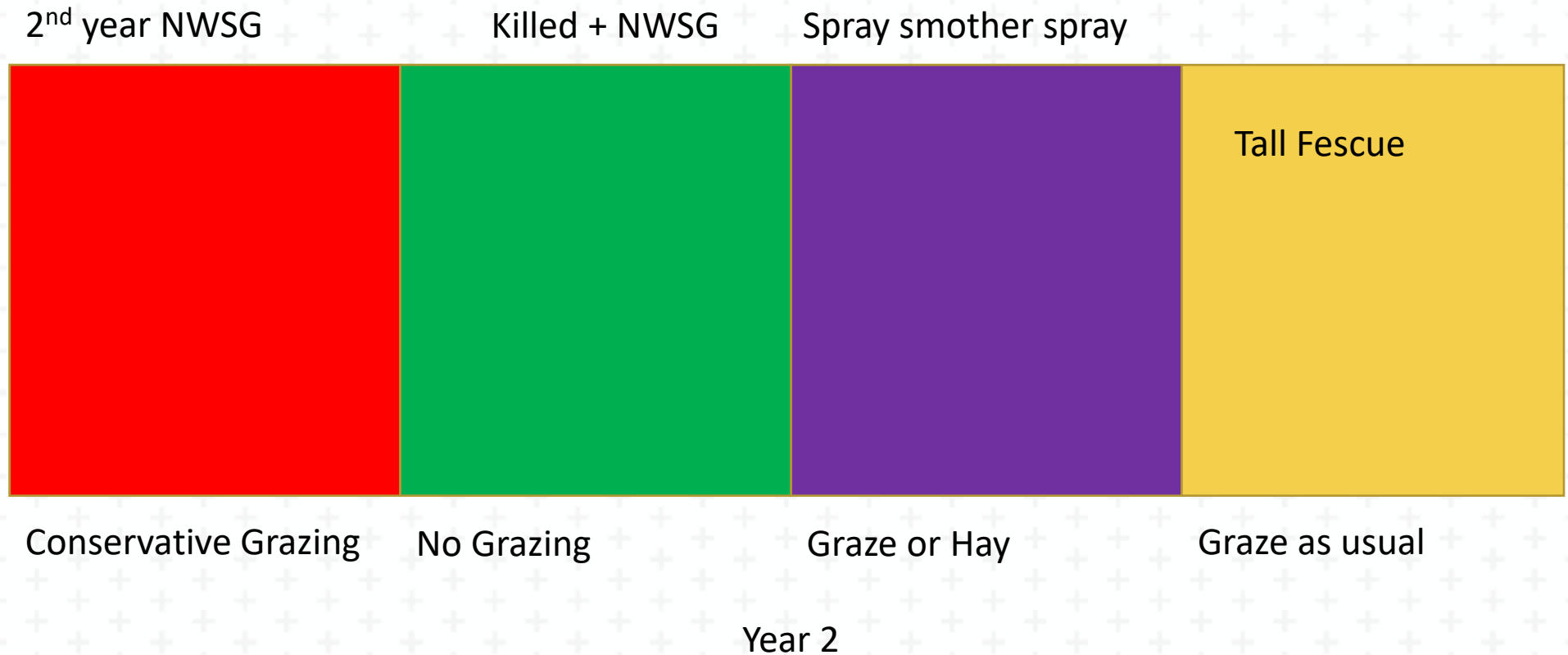
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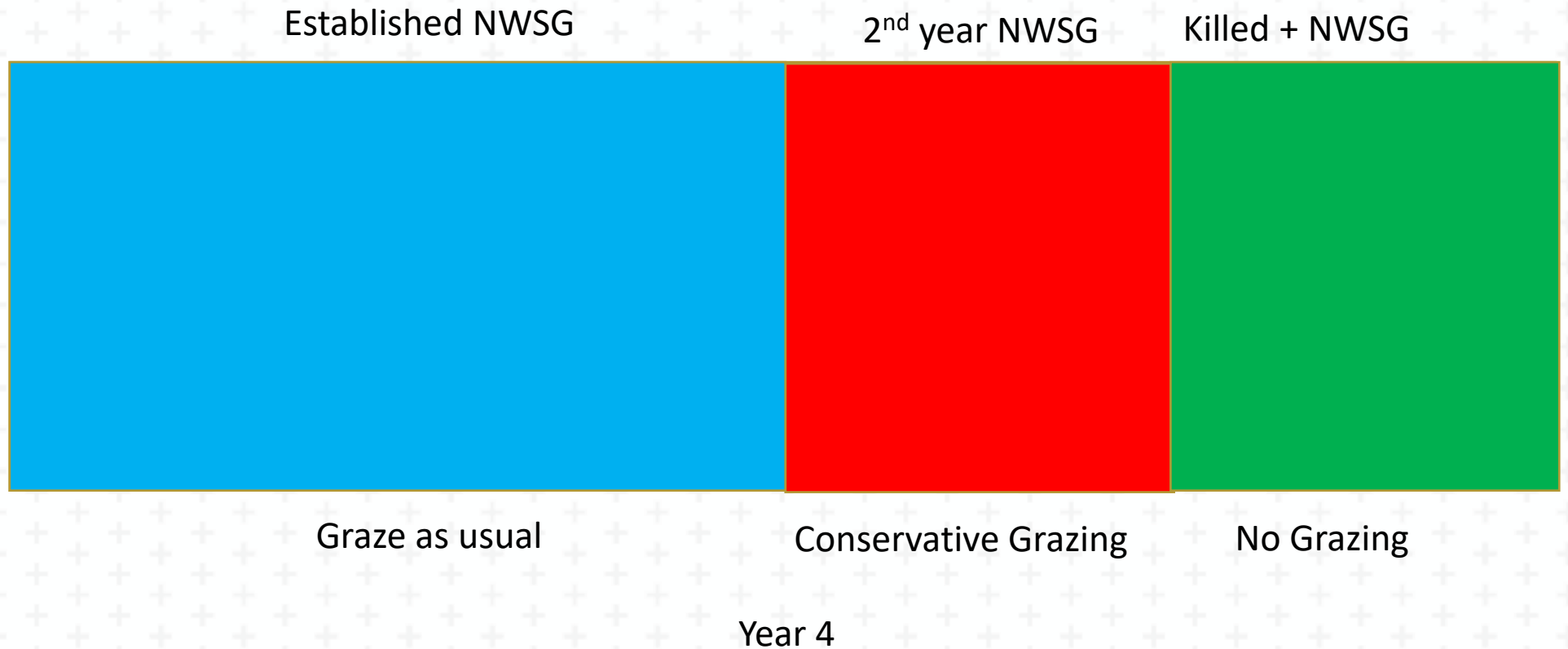
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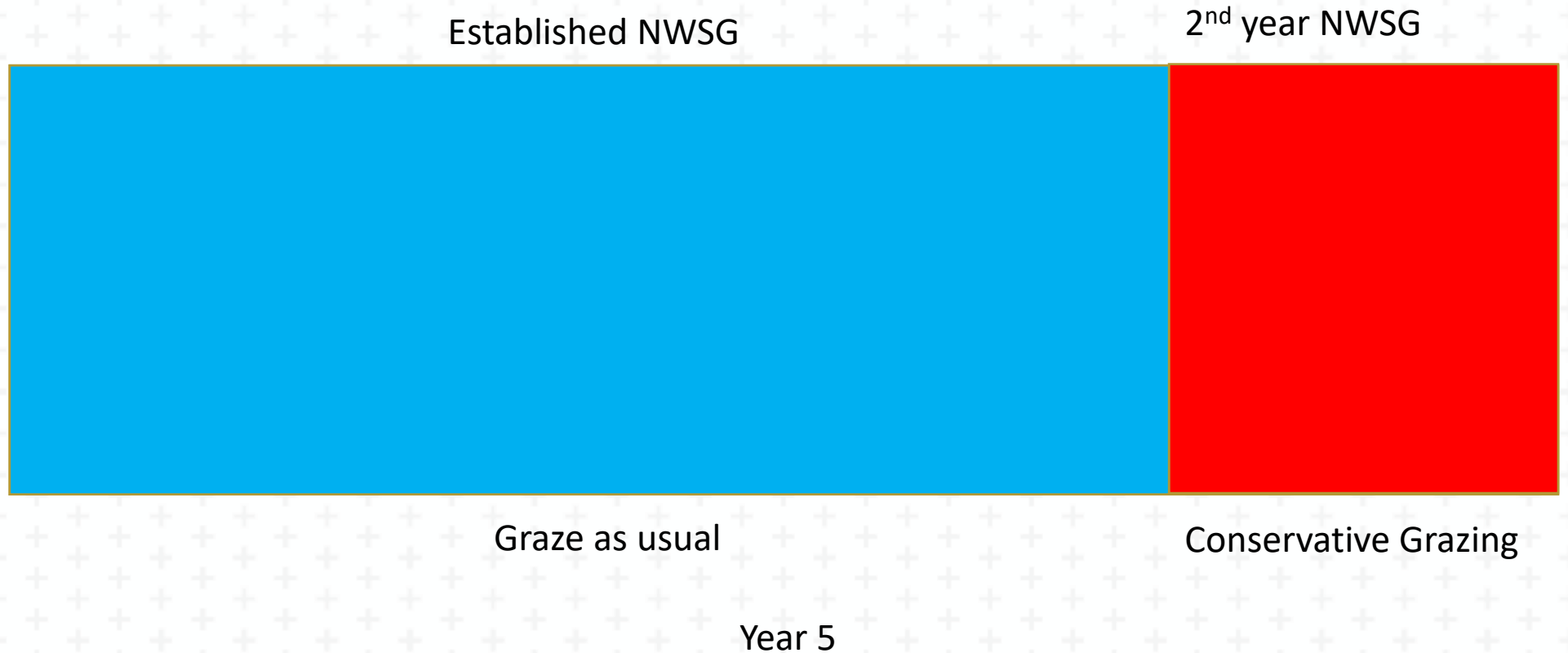
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Putting it all together

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Established NWSG



Graze as usual

Year 6

Wrapping up

- **Many different products and uses exist for native species**
- **Use small applications first to check tolerance if unsure**
- **Fewer options when forbs present**
- **Use the right tool for the job**
 - Imazapic is great, but kills or injures some species
 - **ALWAYS READ AND FOLLOW THE LABEL!!!**



A photograph of a herd of cows grazing in a field of tall green grass. The cows are scattered throughout the field, with one prominent dark brown cow in the foreground on the right. The background is filled with a dense line of trees under a bright sky. The word "Questions?" is overlaid in white text in the center of the image.

Questions?



Thanks!
Gatlin Bunton
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