



Grain Hay -- Herbicide Options

IPM Strategies for Weed Management

- **Cultural control** -- tillage practices, seeding rate, alter planting date, alter harvest date
- **Change site management** -- rotate to non-cereal crops, fallow, field sanitation
- **Herbicides** – select herbicides to control problem weeds, can use different products to control different weeds and to manage resistance

Typical Weeds in Grain Hay

- **Broadleaf Weeds**

Mustards

Wild Radish

Yellow Starthistle

Common Groundsel

Coast Fiddleneck

Cheeseweed

- **Grassy Weeds**

Wild Oats

Annual Ryegrass

Ripgut Brome

Canarygrass

Wild Barley / Foxtail



My Goals

- Reduce grassy weeds in order to sell more hay into the horse market
- Minimize tillage
- Slow the rate of weed re-infestation
- Improve bottom line -- \$\$\$

Herbicide Alternatives

- Clarity (Banvel) + MCPA
- Glean (chlorsulfuron) + MCPA + surfactant
- Osprey (mesosulfuron-methyl) + MCPA + adjuvant
- Simplicity CA (pyroxsulam) + adjuvant

Typical Herbicide Tank Mix for Broadleaf Weeds in Hay

- **Clarity (Banvel) 4 oz/acre**
- **MCPA 12 oz/acre**
- Applied post-emergent to oats, barley, wheat, triticale
 - Applied at 3- to 4- leaf stage and before jointing
 - No adjuvants or surfactants required
 - Apply at least 37 days before hay harvest
 - Does not control grassy weeds nor some broadleafs
- **Approximate cost for tank mix = \$6.15 per acre**



Alternative -- Glean plus MCPA plus Surfactant

- Tank mix of Glean (1/3 oz/ac), MCPA (12 oz/ac), Activator 90 non-ionic surfactant (16 oz/ac)
- Applied post-emergent to wheat at 3- to 5-leaf stage
- No grazing restrictions on Glean; MCPA has 7 days
- Rotational crop restrictions
- Good control of many broadleaf weeds and some grasses -- fiddleneck, mustard, ryegrass, groundsel
- **Approximate cost for tank mix = \$14.72 per acre**

Alternative – **Simplicity CA + MSO**

- Tank mix of Simplicity CA (6.75 oz/ac), MSO methylated seed oil (1- 2 qts/100 gal)
- Applied post-emergent to wheat and triticale between 3-leaf to jointing stage
- Applied at least 60 days before hay harvest/do not cut within 28 days of application or graze within 7 days of application
- Good control of wild oats, ripgut brome, fiddleneck, and mustard, especially when weeds were small
- **Approximate cost for tank mix = \$23.17 per acre**





Alternative -- Osprey plus MCPA plus Adjuvant

- Tank mix of Osprey (4.75 oz/ac), MCPA (12 oz/ac), MSO methylated seed oil (24 oz/ac)
- Applied post-emergent to beardless wheat between emergence and two tiller wheat
- Applied at least 60 days before hay harvest
- Rotational crop restrictions
- Good control of mustard, wild radish, ryegrass, ripgut brome, canarygrass, wild oat
- **Approximate cost for tank mix = \$26.71 per acre**







Herbicide Costs / Returns

- Clarity (Banvel) / MCPA = \$ 6.15 per acre
- Glean / MCPA / Activator 90 = \$ 14.72 per acre
- Simplicity / MSO = \$23.17 per acre
- Osprey / MCPA / MSO = \$ 26.71 per acre

- Value of Cow Hay = 2.5 tons/ac @ \$140/ton = \$350/ac
- Value of Horse Hay = 2.5 tons/ac @ \$180/ton = \$450/ac

Outcome: One or two seasons using high-cost alternative herbicides, then returning to the low-cost tank mix provided high quality horse hay **for two or more seasons.**

Weed Re-Infestations

Field sanitation practices may slow the rate of weed re-infestation:

- Inspect and monitor fields for new or increasing weed infestations
- Rotate herbicides to expand range of weed controlled
- Clean harvest equipment after use in contaminated fields
- Consider treating borders and “weed islands”





Questions / Comments?

