Non-Selective Herbicides

Scythe Reward #Finale **Roundup & generic** glyphosate herbicides

What do they have in common? *No soil residual – POST only *Non-selective – damage most any plants they contact

What is different?

Contact vs. Systemic (translocated)

 This impacts the kinds of weeds controlled – annual vs. perennial

 Speed of action
 Cost

Scythe (pelargonic acid) *Nonselective, Contact herbicide **Rapid** (within hours) Effective on seedling annuals *****Top kill only on perennials and larger established annuals **Constant Service** Service Ser Eye & skin irritant

Scythe

#Contact burn #Fast −

within 30 min on a sunny day



Reward (diquat)

*****Nonselective, Postemergent Contact type -- Not translocated **Rapid response** -- symptoms are visible within 24 hours No soil residual Effective on seedling annual weeds Top kill only on perennials or larger annuals

Reward – contact burn symptoms in a few hours to a day



Finale (glufosinate)

*****Nonselective, Postemergent **Systemic** (translocated) **Rapid response -- symptoms are visible** within 48 hours No soil residual #Effective on annual & perennial weeds *Not as well translocated as Roundup-Pro

Finale – symptoms in 48 hr







Finale not translocated as well as Roundup



FINAL

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PRO

Glyphosate (Roundup, Touchdown and many others) * Postemergence, non-selective control of annual and perennial weeds **Systemic** (translocated) No soil residual Be careful around conifers with the new formulation



Roundup-Pro & others

*** active ingredient: glyphosate * non-selective, postemergent systemic (translocated) No soil residual Not toxic to humans or wildlife Fish may be injured by the surfactant

Glyphosate products **#Isopropyl amine salts** -Roundup, Roundup-Pro -Generics: Glyfos, Glyflo, Glystar, Glyfomax, Target, Razor, the list goes on

Diammonium salt: Touchdown-Pro
Differences? Slight.

Quick-Pro (glyphosate + diquat)

Rapid action, plus systemic kill of annual weeds

??? Will this reduce activity on creeping perennials??? Probably.Popular with many landscapers

Optimum timing for Roundup-Pro

Weed Species	% Solution	Suggested application
		timing for best control
Perennial grasses	1%	At boot stage (first
quackgrass,	and the second sec	indication of flowering)
Johnsongrass, fescue		
Bermudagrass	2%	At boot stage
Poison ivy	2%	~ full bloom (E. summer)
Kudzu	2%	~ full bloom (L. summer)
Greenbriar	3%	early spring (5 leaves)
English ivy	2%	2-3 new leaves (E. spring)

Optimum timing for Roundup-Pro

Weed Species	%	Suggested application
and the second second	Solution	timing for best control
Trumpetcreeper	1.5%	Late summer to early fall
Virginia creeper	1%	Late summer to 1 st fall color
Sericea lespedeza	1%	Full bloom (mid-summer)
Mugwort	2%	Late summer to early fall
Japanese knotweed	2%	Late summer to early fall
Annual weeds	0.25-1%	Younger is better

Roundup injury – severity depends on species and season of applic.

Deciduous plants – greater damage in late summer / Fall

Conifers more sensitive in spring



Using non-selective herbicides without injuring ornamentals



Directed applications

* Wipers

Directed applications: spray to the base of the crop, avoiding contact with foliage and green stems Spray shields may reduce spray drift



*****Directed applications:

Wipers: rope, paint roller, or sponge type devices. Just wipe the weeds when they are taller than the ornamentals



Directed applications
Wipers

Clippers: wet clippers in Roundup-Pro and clip the weed





- Directed applications: Avoid spraying green tissues
- Wipers: rope, paint roller, or sponge type devices. Just wipe the weeds when they are taller than the ornamentals
- Clippers: wet clippers in Roundup-Pro and clip the weed

Do not use Roundup-Pro over ornamentals

Getting the most out of **Postemergence Herbicides** Actively growing weeds Right product for the job **Continue Continue Continue Good spray coverage**

Alternatives to Herbicides

Vinegar – contact type herbicide action [∗] Flame weeders – almost as effective as contact herbicides [≉] Steam – contact kill



