



## Terminating Cover Crops

*By Mike Stanyard - NWN Y Dairy, Livestock and Field Crops Extension Team*

So far, it looks like cover crops did well despite the lack of a prolonged blanket of snow this winter. This makes our cover crops even more valuable as one of their main purposes is to keep our soils from blowing and washing away. It was cold enough that the species that were supposed to winterkill like tillage radish and oats died. For those that remain alive like cereal rye, triticale, wheat, annual rye and clover species, we will have to come up with a plan on how to manage them.

Some of these overwintering cover crops will be used as a forage crop and therefore will be cut at the appropriate time (Growth Stage 9 for triticale) for optimum feed value. Others will be mowed/crimped, tilled under, or terminated with herbicides. Each of these has restrictions depending on what production system you utilize (ie. strictly grain based, no-till, or organic). If cover crops are not dealt with in an appropriate manner, they can become weeds and compete with our production crops. We saw that first hand in a drought situation last year. I have put together some advice on herbicide termination from the Midwest states on some of our commonly used cover crops.



**Annual ryegrass** (*Lolium multiflorum*), also called Italian ryegrass or common ryegrass, has become a very popular cover crop in NY but has a confusing name. It is not an annual and survives the winter very well. Do not confuse annual ryegrass with cereal rye. Annual ryegrass is a good cover crop because of its ability to rapidly germinate in the fall, grow aggressively in the spring, and add substantial root and forage mass to the soil profile.

Here is some advice from University of IL on proper termination with herbicides (<http://bulletin.ipm.illinois.edu/?p=3552>).

- Make applications prior to 8" plant height
- Glyphosate rates of at least 1.25 lb ae/A are required, although 2.5 lb is preferred for annual ryegrass termination
- Ryegrass must be actively growing, and it is recommended that applications occur only following three consecutive days when air temperatures have been above 45 F
- The addition of saflufenacil to glyphosate can improve control of annual ryegrass
- Combinations of paraquat, metribuzin and 2,4-D or dicamba can control small ryegrass (<6" in height), but are not recommended for control of larger plants
- Avoid using PSII herbicides (atrazine & metribuzin) in mixtures with glyphosate, as they can cause antagonism and poor control of annual ryegrass.

**Cereal rye.** Glyphosate at a rate of 0.75 lb ae/A will effectively control both species up to 18 inches tall. Mixtures of glyphosate plus 2,4-D, chlorimuron, chloransulam, atrazine, or saflufenacil can also be applied for additional control of other cover crop species (specifically broadleaf species) and residual control of summer annual broadleaf weeds. Depends on what crop species is going to be planted. The nonselective herbicides paraquat and glufosinate are less effective than glyphosate on these species.

Gramoxone SL (paraquat) applied at 3 to 4 pints per acre works well on smaller rye before it reaches the boot stage. Add a nonionic surfactant to the spray tank to enhance penetration and total kill. If you will be planting corn and choose to use Gramoxone SL, consider adding 1 quart of atrazine per acre to improve control of the rye. (personal communication, Mike Hunter, CCE). In 2009, research by Bill Curran at Penn State University, found that the additional of 1 quart of atrazine per acre, when used with Gramoxone, provided 99% control of 8-10 inch tall rye. Only 70% control of the rye was achieved when Gramoxone was used alone in this study.

**Crimson clover and Austrian winter peas** are two popular legume species used as cover crops that typically do not winter kill and require a spring termination. I have seen control issues with large pea vines with glyphosate. Information on control of these species with herbicides is limited, but cover crop guides advise that glyphosate and 2,4-D/dicamba easily control crimson clover and winter peas.

University of Wisconsin has a nice fact sheet with additional cover crops which lists termination methods preferred and herbicide options ([https://host.cals.wisc.edu/wcws/wp-content/uploads/sites/4/2013/03/WCWS\\_204\\_cover\\_crop\\_termination\\_WEB.pdf](https://host.cals.wisc.edu/wcws/wp-content/uploads/sites/4/2013/03/WCWS_204_cover_crop_termination_WEB.pdf)).

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## Keep an eye out! WNY Soil Health Alliance's Summer Workshop and Field Day will be held mid-August 2017.



Photo by Jena Buckwell

We are pleased to announce that our summer workshop and field day is in the works! Workshop date and details will be announced soon.

Field and equipment demonstrations will be held at Toussaint Farms in Ridgeway, NY. Toussaint Farms has been no-till since 2013. To learn more about Toussaint's experience with reduced and no-till, please visit our website. ([wnysoilhealth.com/blog/toussaintnotill](http://wnysoilhealth.com/blog/toussaintnotill))



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