



## Is it legal to use a cover crop as a forage crop? Maybe NOT.....

Learning for life

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There are a lot of people interested in establishing cover crops with the intention of harvesting them as an emergency forage crop due to the 2012 drought. Species that are often discussed range from traditional cereal grain crops like wheat, rye, and oat, to species that are less conventional like wild buckwheat and chicory. Much interest is even being driven by agencies that have lifted other restrictions on this practice. For example, there has been recent assistance put in place by USDA NRCS to help establish cover crops including the allowance for grazing and harvesting in some situations. More information can be found here:

<http://www.wi.nrcs.usda.gov/news/newsreleases/eqip12drought.htm>. Additionally, the USDA has changed crop insurance rules for 2013 only to allow the production of cover crops and emergency forage crops while allowing insurance coverage for crops planted in the spring of 2013. More information about this rule change can be found here:

<http://www.aae.wisc.edu/pdmitchell/CropInsurance/RuleChange.pdf>. However, it is important to know, that these changes do not override the legal implications and responsibilities to safely use pesticides in accordance with pesticide labels. The restrictions on the label are put into place to ensure we continue to produce a safe meat and milk supply, and while many understand the need and desperation of producing additional feed crops in a difficult year, we should not place production ahead of safety in our food chain.

First, let's define 'forage crop' and 'cover crop'. The Crop Science Society of America (CSSA) defines 'forage crop' as "a crop of cultivated plants or plant parts, other than separated grain, produced to be grazed or harvested for use as feed for animals." CSSA does not define the term 'cover crop'. Cover crops were traditionally considered 'green manures'. That is, they are traditionally considered as *UNHARVESTED* crops that are typically grown to provide an environmental benefit to the cropping system. Somewhere they garnered the name 'cover crop', probably because they provide cover to the soil surface, and perhaps they are a 'crop' because they arguably produce a benefit to the soil. However, let me be clear, that the distinction between whether the biomass produced stays in the field, or leaves the field as a forage, is a very important distinction regarding legal responsibilities. If the biomass produced leaves the field as a forage to be feed, then it is considered a 'crop' on pesticide labels.

**Herbicide labels are the law. It is a violation of Federal law to use pesticide products inconsistent with its label.**

Once a pesticide (e.g. herbicide) is used in a cropping system, the restrictions on that pesticide label must be followed for the crop it is used in AND the succeeding crops until all restrictions of that pesticide label have surpassed. Every herbicide label has a section that addresses 're-crop intervals' or 'plant back restrictions'. In Wisconsin, these restrictions are interpreted to be placed on the label for two main reasons; 1) to protect humans and animals from herbicide residues that a succeeding crop may accumulate at elevated levels prior to entering the feed or food chain and 2) to provide information to the user that protects them from failing to establish a succeeding crop.

If a cover crop is grown as a 'cover' or green manure and the biomass produced stays in the field (unharvested), then there is no concern about residues entering the food or feed chain. Therefore, it is not illegal to plant a cover crop in this scenario. However, if the plant back restrictions are not followed, then the grower assumes all the risk associated with a failed succeeding crop establishment. But, in terms of protecting humans and animals from potentially consuming pesticide residues at levels greater than considered allowable, there is little risk for this practice.

When a herbicide is registered for use the herbicide registrant must prove to the Environmental Protection Agency (EPA) through extensive research that there is no threat of harmful residues in succeeding crops if the product is used according to the label. This extensive research process must be completed for each individual plant species to be used as a succeeding crop. If a succeeding crop species is not specifically examined for residue safety, then the time lapse on the label is defaulted to a time at which the herbicide has shown it will have dissipated in the soil profile to a point at which it can't be taken up by a succeeding crop at unsafe levels. The default time is often 18 months to two years, but it can be longer for some herbicides. In addition, many herbicides also require (in addition to time lapsed) a successful field bioassay be conducted.

Below are examples of restriction excerpts taken directly from common herbicide labels used in corn, soybean, or both crops. These labels can be found online at the Department of Agriculture Trade and Consumer Protection (DATCP) registration website:

<http://www.kellysolutions.com/wi/pesticideindex.asp>. Specific products are listed strictly as examples and are not meant to be an inclusive or exclusive promotion.

### **Commonly used corn herbicides:**

Harness® ; Page 3 ; Under the *Rotation to Non-Food Winter Cover Crops*: "Following harvest of food crops treated with Harness herbicide, only non-food or non-feed winter cover crops (with the exception of wheat) can be planted. Do not graze or harvest rotational cover crops for food or animal feed for at least 18 months following the last application of Harness herbicide. This prohibition does not apply to wheat, which may be planted 4 months following the last application, or to non-grass animal feeds which can be planted 9 months after the last application of Harness herbicide.

Laudis® ; Page 9 ; Under the *Rotational Guidelines* heading is Table 3. Rotational Crop Guidelines with “All other crops” under 18 months heading. Additionally, there is an *Other Crops* section that states “All other crops may be seeded only after the completion of a successful field bioassay after a Laudis Herbicide application. Refer to the “Field Bioassay” section. “Field Bioassay” sections states: “A field bioassay must be completed before rotating to crops other than those specified in the Rotational Guidelines section of this label.”

Lumax® ; Page 12 ; Under the *Rotational Crops* heading: “For all other crops, wait 18 months. Do not rotate to Food or Feed Crops other than those listed on this label.”

Surestart® ; Page 4 ; Under the *Rotational Crop Restrictions* heading: “Rotation to...all other crops requires a 26-month rotation interval and a successful field bioassay.”

### **Commonly used soybean herbicides:**

Extreme® ; Page 10 ; Under the *Rotational Crop Restrictions* heading: “\*Following forty (40) months after an Extreme application, and before planting any crop not listed elsewhere in the Rotational Crop Restrictions, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity.”

Warrant® supplemental Label, 36067J1-13 Rotation to Non-Food Winter Cover Crops; Page 1 ; Under the *Rotation to non-food winter cover crops* heading: “Following harvest of food crops treated with Warrant herbicide, only non-food or non-feed winter cover crops (with the exception of wheat) may be planted. Do not graze or harvest rotational cover crops for food or animal feed for 18 months following the last application of Warrant herbicide.”

### **Commonly used residual herbicides in both Corn and Soybean Systems:**

Dual II Magnum® ; Page 8 ; Under the *Rotational Crops* heading: “Do not rotate to food or feed crops other than those listed below. For all crops not listed, wait at least 12 months following application of Dual II Magnum before planting.”

Verdict® ; Page 14 ; Under the *Crop Rotation and Emergency Replanting Intervals* heading: for crops not listed on the label “There are no rotational crop restrictions the spring following the previous year’s application of Verdict.”

Again, mention of specific products is for example purposes only and is a very partial list of pesticide products used in the production of corn and soybean products. My personal experience through my Extension activities leads me to believe that growers in conventional agriculture do already care very much about producing high quality and safe products in a sustainable manner. I only want to bring this issue to attention because in the drought conditions and the hast of trying to fix a difficult situation with unconventional practices, that regulations of this manner are not overlooked. I empathize with the growers whom need to produce emergency forage for their

operations, but I hope this information is useful for making informed production decisions. As always, read and follow the label directions.

**In review,**

- If a plant species is intentionally planted as a cover crop whereby no plant parts will be removed from the field, then plant back restrictions on a label can be ignored but the grower assumes all risk of succeeding crop damage or failure.
- If a plant species in whole or in parts is harvested for food or feed purposes, it is considered a 'crop' and must be considered as a crop on all pesticide labels.
- It is a legal obligation of the grower to ensure that plant back restrictions listed on the label of all herbicides used in the cropping system are followed for each plant species before a succeeding crop can be harvested to enter the food or feed chain.
- If a plant species is not specifically listed on the label, it should be considered as an 'other crop', and maximum rotation restrictions should be followed.
- Most herbicides, particularly residual herbicides, have plant back restrictions that are longer than one year (most often 18 to 24 months) for crops not specifically listed on the label, and some herbicides may require a successful field bioassay be conducted.

**References**

Glossary of Crop Science Terms. 1992. Robert F. Barnes and James B. Beard (ed.) Crop Science Society of America. Accessed online September 2012:

<https://www.crops.org/publications/books/articles/acesspublicati/glossaryofcrops/frontmatter>

For More Information see the UW Extension FYI Drought 2012 web page

<http://fyi.uwex/drought2012> or contact your local UW Extension Agent for information on drought and emergency forage options.