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Weed/Brush Control Practices

University of Missouri researchers surveyed 66 pastures between 2015 and 2017 looking at the average number of weeds per acre. Annual broadleaf weeds led the way, peaking at close to an estimated 7,500 weeds per acre. Perennial broadleaf weeds were a close second, peaking at an estimated 5,000 weeds per acre. Total weed pressure (the sum of annual and perennial grasses and broadleaves plus sedge species) reached almost 20,000 weeds per acre.

While weed numbers were plenty high, weed pressure distribution added another angle to weed management efforts. Annual broadleaf weed pressure jumped early and remained steady through the growing season. In contrast, annual grasses weren't prevalent until late summer.

Weeds don't behave in a way to make control a one-shot process, requiring an integrated approach instead. It can be difficult to know what that might look like, however, and that's where a reference in the *2023 KSU Chemical Weed Control Guide* might be of value.

At the front of the **25** pages dedicated to pasture and rangeland brush/weed control is a chart listing our common forage land weeds. In addition to dividing them by growth cycle (annual/biennial/etc...), it also gives control efficacy ratings by mechanical means (mowing, cutting, etc...), burning, and herbicide programs. It's not a one stop control shop, but it *can* be a start towards enhancing an integrated control management program for grassland acreages.

If you're interested in taking a first look at integrated control options, hard copies of the *2023 KSU Chemical Weed Control Guide* are now available from any Meadowlark Extension District Office. To look at specific sections or to download a full digital copy, visit <https://www.bookstore.ksre.ksu.edu/pubs/CHEMWEEEDGUIDE.pdf>.

Truth or Myth – Pesticide Toxicity

A quick look at lawn and garden pesticide product labels can help us understand how a product works and how it's used, but it can take some deeper research to find out more about product characteristics. Pesticide toxicity is one characteristic that can be difficult to understand.

For example, a label stating a product is synthetic or organic doesn't tell the full story of product toxicity. All pesticides, whether from a lab or a living organism, are toxic. The EPA rates toxicity on what's known as its LD50. The lower the number, the more toxic the pesticide.

There are numerous examples of synthetic products as well as organic ones that have low toxicity ratings. Likewise, there are products from both sources of origin exhibiting higher toxicities as well. It takes a little label searching, but if you are after toxicity numbers, looking for that LD50 is one of the first things you should do.

Pesticide purchasers should always read and follow product labels to ensure products are applied correctly to the right crops - but don't stop there. Pesticide safety – for you personally and the environment around you – is an important consideration as well. Look for an LD50 number to help you evaluate potential product safety risks.

One really nice resource for anyone interested in pesticide use and management is the National Pesticide Information Center at: <http://npic.orst.edu/about.html>. They provide objective, science-based information about pesticides and pesticide-related topics to enable people to make informed decisions about pesticides and their use. They're a great resource if you are trying to learn more about pesticides and their use.