

The Flow



Take a Pasture Walk

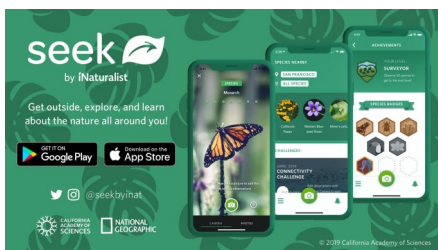


Over the past few years the term “Pasture Walks” has gotten a lot of play, but do you really know what the importance of this practice really is? Sure, walking is good exercise and my wife tells me that I need to get in at least 10,000 steps everyday. Aside from good physical exercise, regular pasture walks should be right at the top of your grazing management strategy. What you can observe in regular pasture walks is nearly endless and can help direct you in making some very critical management decisions.

Walking over pastures regularly, especially during the growing season, can let you know what plant species you have and what ones are thriving in your fields. You can also get a good idea about which plant species your livestock prefer. Monitoring plant growth during grazing can let you know when you need to be rotating pastures. And seeing forage plants that are matured might indicate that your grazing rate or pressure is too low and you might want to consider temporary hotwires to create smaller paddocks and promote more even grazing and forage utilization.

After spending some time watching a recent webinar on toxic plants, I believe another good reason to perform regular pasture walks is to discover if you have any troublesome plants in your pastures and hay fields. Many plants can be a cause for concern in pastures and hay fields; even some of the plants we have always considered desirable. Did you know alfalfa, when grazed after a frost can potentially cause bloat, or that red clover can cause “slobbers” in horses when it is infected with the fungus Black Patch, or that Alsike clover can cause photosensitivity in white skinned animals, especially horses? Just knowing the plant species make-up of your pastures will allow you to do the best job you can at determining when certain paddocks should or should not be grazed.

Another plant related concern in pastures and hayfields are the truly poisonous weeds. Plants like white snakeroot, pokeweed, poison hemlock, jimsonweed, and Eastern black nightshade can spell trouble for the producer with grazing livestock. Besides poisonous plants, there are several that can cause physical damage to livestock; those include Canada thistle, stinging nettle, horse nettle and cocklebur. This is just the tip of the plants that you should be on the lookout for when doing regular pasture walks. If this sounds a bit overwhelming, identifying plants and knowing if they are harmful to livestock, there is a new aid that you probably need to get. Just like the popular saying goes, “there is an app for that”. Yes, there is an app that you can get free on your phone (iPhone or android) called Seek by I Naturalist that will identify plants for you right on your cell phone. I’ve used it and it works pretty well. Another good resource is the Purdue Forage Field Guide available through Purdue Extension.



Seek by I Naturalist is a neat app that helps you identify plants using the camera on your cell phone.

Clark County Soil & Water Conservation District

Partners helping to make our project happen:

- > Clark/Jefferson/Scott County Health Departments
- > Jefferson and Scott County SWCDs
- > IDNR Division of Nature Preserves
- > Indiana State Department of Agriculture
- > Natural Resources Conservation Service

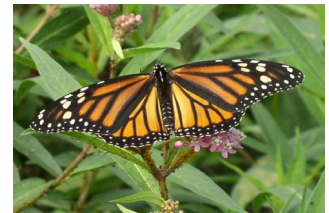
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What's the Concern About Monarchs?

First, and foremost, monarch butterflies (or just monarchs) are pollinators. We rely on them and other pollinators to pollinate the crops we grow as well as the plants we eat. Pollinators need the same habitat (native milkweed and other nectar producing flowering plants) to survive. So, if the monarchs are in trouble because they don't have enough habitat, it stands to reason that other pollinators that share that same habitat are in trouble as well. Monarchs are so well known and their decline is so easily seen, they have become the proverbial 'canary in the coal mine' for pollinator species. The declining monarch population parallels other declining pollinator populations, which in turn impacts human food systems.



Another point of interest is the unique migration of monarchs which in turn inspires interest in the natural world across the entire continent. The fact that these little insects, that weigh no more than a paper clip, travel thousands of miles to an unknown destination is a phenomenon that deserves protection for its own sake, but also because it is an amazing way to teach the next generation about science and caring for the environment. If you've ever seen a monarch caterpillar pupate, or an adult emerge from its chrysalis, you know how amazing their metamorphosis is too.

So, if you find a patch of milkweed growing on your property this summer, consider leaving it for the monarchs and other pollinators. Other ways you can help with the pollinator population decline is to consider planting small pollinator plots in your home landscape or out-of-the-way places on your property. For helping in selecting appropriate plants, contact us at the Clark County SWCD.

Benefits of Wheat in a Corn-Soybean Rotation

A long-term study in the Northern Corn Belt could have an impact on the benefits of crop rotation in the Mid-West Corn Belt as well. The study, which has been ongoing for at least 36 years at some locations, involves adding winter wheat to the typical corn-soybean rotation.

The study was recently published in *Agronomy Journal*. The research was conducted in the Northern Corn Belt, which includes Iowa, Nebraska, Illinois and Minnesota, where more than half the U.S. corn harvest came from in 2019. The Northern Corn Belt also extends into Canada.

The study shows that including winter wheat in a corn-soybean rotation actually produces higher yields of these row crops but, there were other benefits as well. In the study, winter wheat was grown every 3 or 4 years with corn and soybeans. Study results found that longer-term corn-soybean rotations that contain winter wheat result in more profitability than the typical 2-crop rotation. Furthermore, the greatest yield increases occurred in rotations that included winter wheat once in four years.

Even with the typically higher financial returns from corn and soybeans, the inclusion of winter wheat in the cropping rotation resulted in increased row crop yields that more than offset the lower sale returns associated with the wheat crop.

However, the study also found that the increase corn and soybean yields associated with the inclusion of wheat in the rotation disappeared over time if wheat was dropped from the rotation. The study showed that the highest yield increases of corn and soybeans came in the later years of the study.

Rotating wheat with corn and soybeans also has other benefits. For example, soils tend to be healthier and have better structure when crop rotations include small grains or forages in addition to the typical row crops. Good soil health and structure can have far-reaching consequences. Inferior soil structure increases soil erosion and runoff risks. In turn, that increases the risk of surface water pollution. On the other hand, good soil structure and soil health may increase water availability for crops.

The study also put to rest a belief that removing the wheat straw negatively affects yield of subsequent crops. In fact, the researchers baled the wheat straw at one trial site without reducing corn and soybean yields the following year; thus showing that the retention of straw isn't needed to obtain greater corn and soybean yields when in rotation with wheat.



Pesticide Clean Sweep



The Indiana Pesticide Clean Sweep Project has been designed to collect and dispose of suspended, canceled, banned, unusable, opened, unopened or just unwanted pesticides (weed killers or herbicides, insecticides, rodenticides, fungicides, miticides, etc.). This program, sponsored and conducted by the Office of the Indiana State Chemist (OISC), is a free of charge disposal service for up to 250 pounds of products per participant. Folks with more than 250 pounds will be charged a \$2.00 per pound fee. This is a great opportunity for people to legally dispose of unwanted products in an environmentally safe way at little or no cost.

The Clean Sweep program is open to all individuals and to public and private schools, golf courses, nurseries, farmers, ag dealers, cities, towns, municipalities and county units of government.

Six locations will be offered in 2021. The nearest for folks in the 14-Mile Creek Watershed is on August 24 at the Harrison County Fairgrounds (341 S. Capitol Ave., Corydon, IN). Other sites and locations around the state include: Aug. 17 in Elkhart, Aug. 18 in Veedersburg, Aug. 19 in Bicknell, Aug. 25 in Liberty, and Aug. 26 in Danville. Hours of operation at all sites will be 9:00 am to 3:00 pm local time.

In order to participate in the Clean Sweep program you will need to complete a **Pesticide Clean Sweep Planning Form** and submit it to Nathan Davis (via email, cleansweep@groups.purdue.edu OR by fax, 765-494-4331) by August 6, 2021. This form and more information is available at the Clark County Soil and Water Office (812-256-2330, ext. 3465) or at the Indiana State Chemist website (www.oisc.purdue.edu/pesticide/clean_sweep.html).

Here's a Flow Fact for You!



What causes a flood? Most people think floods are caused when we get a lot of rain all at once but they can be caused by other things such as a river overflowing, a large amount of snow melting too fast or a dam or levee breaking. Floods can cover the ground with just a few inches of water or the water may rise higher than the roof of your house! It is important to check to see if you live in an area that might flood, and what you can do to be prepared in case of flooding.

Unlike floods, droughts don't happen quickly and it's harder to see. A drought happens when we don't get as much water as we need over a long period of time. Remember, Water is Life, so a shortage of water can also have a big impact on our lives. During a drought there may not be enough water to do the things we are used to doing such as swimming, boating and other fun things. Another concern during a drought is there isn't enough water in the soil for crops to grow or for pastures to grow enough food for livestock. Have a plan in mind of the things you might do to conserve water in a time of drought.



Bale Storage Important In Reducing Feed Costs

The current hay and forage inventories are approaching their annual low levels. This means there is a break from the chores of daily feeding, but it also means there is an opportunity to make improvements in your hay storage facilities. The benefit of improving hay storage facilities isn't anything new. The goals for these improvements are to reduce waste, maintain forage quality and prevent contamination.

It's fairly simple to reason that storing hay in a low area that can turn wet and muddy is a bad idea. But there are consequences less apparent beyond feed refusal and waste that impact animal health and performance. We can have contaminants like trash and manure and even rodents that will reduce the acceptance and desirability of the hay.

Depressed gains or other slight performance changes caused by spoiled or contaminated forages may or may not be readily noticed. But animal health issues are often the most obvious and biggest concern. While some contamination can happen during harvest (like, who hasn't baled the occasional snake in a big round bale) additional health issues can arise from subpar storage environments.

Feed waste may not be a line item on your operating budget sheet but, limiting feed waste can be one of the most effective ways of reducing feed costs. Some dry matter forage loss during the storage period is unavoidable, but a complete disregard for how forage is stored can result in losses of over 50% of the original harvested dry matter.

The investment in a dry forage storage facility can be expensive so the producer needs to consider what makes the most sense for their operation based on resources, scale of production, and the environment.

Some basic low-cost strategies to reduce dry forage waste during storage might include net wrapping large round bales, increasing bale density, constructing a storage pad, or buying a hay tarp to cover bales. A good rule of thumb to keep in mind is that for a 5 ft. diameter round bale, the outside 9 inches make up 50% of the bale's total weight or dry matter. Large round bales that are left unprotected by some means and placed directly on the ground can result in feed waste of 5% to as much as 61%. However, demonstrations have shown that bales placed on a well-drained area and that are covered (plastic net or tarp) to help shed moisture, result in a drop of that feed waste range to 2% to 17%.

If you need help designing a bale storage area, contact us at the Clark County SWCD; we can help and we may be able to provide some cost-share assistance.



If you have property in the 14-Mile Creek Watershed, funds may be available to help you install a bale storage area that will protect your hay crop from losses like this and others that are less severe. If you could benefit from a new bale storage site, consider applying for cost-share funds through the 14-Mile Creek Watershed Improvement Project.

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