Cover Crops Can Provide Added Benefit Brooke Beam, PhD Ohio State University Extension, Highland County Agriculture and Natural Resources/Community Development Extension Educator

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Cover crops are a frequently discussed topic among agriculturalists of both livestock and crop production. Primarily used to manage soil erosion and soil quality, cover crops can provide added benefit to many farming operations. While cover crops are not always a traditional crop that is planted with the intention to be harvested, they can provide other benefits which may result in higher profits by improving the soil.

Cover crops have been used for centuries, but have made a comeback in popularity due to environmental and ecological efforts, according to Alan Sundermeier, an Ohio State University Extension Educator. Benefits of cover crops include improvements to soil quality, erosion control, fertility improvements, suppression of weeds, and insect control. Cover crops can be planted as soon as the previous crop has been harvested or consumed. For instance, once a field of soybeans has been harvested in September, wheat could be planted immediately following.

There are a variety of plants that serve well as cover crops. These plants include hairy vetch, alfalfa, clovers, rye, oats, wheat, and forage turnips. Sundermeier said, "a combination of two or more types of cover crops may be beneficial for quick establishment and improved nutrient utilization."

Dr. Jim Linnie, a Highland County grass-fed beef producer, has utilized cover crops on his farm to extend the grazing season and improve the soil quality. Linnie no-tilled his cover crop seed into his existing perennial pastures after his cattle had grazed the pasture to a low height. He used a combination of forage oats, nitro radish, purple top turnip, rape, and hairy vetch. Linnie said his cattle will enjoy this "salad bar" in November and December.

As you consider cover crops for your farming operation, think about the use of the land and how long the fields or pastures are green. Fields that experience longer periods of growing seasons can be healthier due to added nutrients, enhanced soil biology, and improved organic matter in the soil. Linnie partnered with Peter Donovan of the Soil Carbon Coalition to study how many days his pasture had a green growing season. The Soil Carbon Coalition utilizes Google Earth Engine's catalog of satellite imagery to detect the normalized difference vegetation index (NDVI), which is an indicator of the activity of photosynthesis or the presence of green vegetation.

The Soil Carbon Coalition has an interactive map of the Little Miami watershed, which includes portions of Highland County, available to view on their website. If you are interested in seeing the impact of cover crops from a local perspective, check out the map at https://soilcarboncoalition.org/html/LittleMiami.html. For more information about cover crops

and how to incorporate them into your farming operation, contact the Highland County Extension Office at 937-393-1918.

Upcoming Events:

The **Global Climate Change Update** with Dr. Thomas Blaine from The Ohio State University will be held on Tuesday, November 13, 2018, from 6: 30 P.M. to 7:30 P.M. The program will be held at the Brown County Fairgrounds, Rhonemus Hall. The cost to attend is free, but registration is required. For more information or to register, contact James Morris at morris.1677@osu.edu or at the Brown County Extension Office at 937-378-6716.

The next **Highland County Monthly Extension Program** will be held on December 10, 2018, at 10:00 A.M. at the Ponderosa Steakhouse in Hillsboro, Ohio. More details will be coming soon, please save the date and plan to attend.