



GLOSSARY

OF TERMS

Welcome to our non-technical explanation of agricultural terms and practices used by farmers. Rather than providing the science and technical jargon to define these agricultural terms, this is a translation of farm language to the rest of the world. We've tried to explain them in a way that relates to the majority of the population. There are thousands of terms to define, so this list is just the beginning. Terms defined by Michele Payn-Knoper.

Biotechnology

Taking one gene (a small part of DNA) from one plant and placing it in another. Think seedless watermelons and grapes. Contrary to rumors, approved biotechnology uses naturally occurring genes and is heavily researched. For example, companies invest around \$150 million and 15 years in research before biotechnology seeds are approved—far more than any “regular” seed. Biotechnology was named genetically engineered and genetically modified organisms by activists when it was first approved by USDA.

Boluses

Large pills given to large animals through a tube that protects their throat and human hands. Boluses are given when medication is needed to help an animal feel better (e.g. aspirin or a massive dose of vitamins) or as a preventative (e.g. giving a heifer a magnet to protect her stomach from a metal object she might eat).

Conventional

Common term for modern farming practices, but also used to describe a farm that is not certified organic. Conventional farms can be small or large. Conventional practices can include no-till and GPS. These farms adapt a wide variety of practices and technologies. Some are grass fed, others farm thousands of acres. Just as schools have many labels today, so do farms.

Cow tipping

A myth about being able to tip cows over while they're sleeping. Cows lay down while sleeping, so this particular idea is a myth. Besides, cows are way too smart to let a strange human come up and “tip” them without extending their rear foot in greeting!

Crop rotation

The practice of rotating the different kinds of crops (seeds) planted each year to protect the soil, reduce disease and maximize productivity. Know how you're not supposed to plant tomatoes in the same are of your garden year after year? The same applies to a farmer's fields.

European Corn Borer

As you might expect from the name, this insect bores into the plant and ear of corn. In addition to damaging the ear of corn, it weakens the plant and leaves it susceptible to disease and weather damage. Plants have been bred to be resistant to this one virulent pest.



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Forage

Roughage, such as alfalfa, corn, oats, wheat or sorghum that provide fiber and starch in an animal's diet. Either chopped into small pieces to become silage or baled. You could also draw a comparison with multi-grain bread or breakfast cereal.

Free stall

An individual bed for animals to keep them clean and comfortable. Their bedding may be sand, sawdust, recycled materials or a waterbed mattress. Free stalls are typically metal u-shaped tubes so the animals (most commonly dairy cows) have an area where other animals don't injure them. If you ever had another cow step on your teats, you'd understand. Free stalls usually are "laundered" a few times a week at minimum since cows don't use toilets.

GPS-assisted swath control

You know you can adjust your fertilizer spreader to put more or less product on your lawn? The same is true for fields, except the term for how far the product spreads is "swath." Swath control on farms uses a GPS system to understand the areas of the field that have already had a product (fertilizer for example) applied and automatically shuts portions of the application equipment off to only apply product exactly where it is needed. It's better for the environment and saves money, too.

Haymow

The area where hay (also known as forage, alfalfa or grass) is stored to keep it out of the elements. Historically, the haymow was most commonly found on the second floor of a barn. Today's large bales are typically stored in their own barn to be sure they offer the best nutrition possible for animals.

Heifer

A female bovine (beef or dairy animal) that has not given birth. Heifers usually calve around two years old to be sure they are grown and ready to give milk. This is another term to refrain from using when describing humans.

High Fructose Corn Syrup (HFCS)

Take a look at the Karo in your pantry or at a grocery store. It's a sweetener that was likely used by your great grandmother; it has been common in home kitchens for decades. HFCS has come under fire for the commercial use of it as a sweetener. It's a by-product of wet milling corn and meets the FDA requirements for the use of the term 'natural.'

Humus

Organic matter found in the soil, not the yummy treat in your refrigerator (hummus). Think happy earthworms—they love humus, which is partially decayed plant or animal matter to provide nutrients for plants and helps the soil stay moist. Black soil has a lot of humus.

Irrigation pumps

This is similar to your lawn sprinkler, but on a much larger scale. An irrigation pump moves the large volumes of water used in irrigation from either an underground source (like a well) or an above ground source like a pond or creek to the irrigation unit in the field that waters the crop.



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Moisture | Temperature sensors in bin

Have you ever had your sugar get nasty from not being stored properly? Same is true for grains, only they're stored in large metal bins. Placing sensors in a grain bin allows a farmer to monitor the quality of the grain. The moisture sensors allow the grain to be dried to the proper level. The temperature sensors alert to any problems with grain quality, as grain that is at risk of declining quality will show rising temperatures. I wish I had that for my sugar bowl!

No-till

A modern farming practice that conserves both topsoil and water. Rather than tilling the soil in the spring, farmers will plant seeds without working the land first and then apply herbicide for weed control. Colder states are not favorable to no-till, as turning over the soil allows it to warm faster (making it ready to be planted) in the spring.

Organic

The USDA Organic label is the only certified federal program, so look for that seal if you want organics. The USDA defines organic as "a labeling term that indicates that the food or other agricultural product has been produced through approved methods that integrate cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Synthetic fertilizers, sewage sludge, irradiation, and genetic engineering may not be used." Please note that this does not mean that pesticides, insecticides, fungicides and fertilizers are not used. You can find USDA organic regulations at <http://foodconvo.com/X5LDpE> and Canadian regulations at <http://foodconvo.com/ZICyyy>.

Pesticides | Insecticides | Fungicides

Products used to kill or stop insects, rodents or fungi. Weed killer, ant spray and athlete's foot treatment are household examples of these products. These can be naturally occurring or man-made. The use of pesticides, insecticides and fungicides in both organic and conventional farming is heavily regulated. Farmers are required to attend training in safe handling, application and disposal of these products. Most farmers use the products sparingly to protect their land, animals, water and families—as well as keep costs down. If you've ever grown a garden, you know there will be bugs of some sort to manage where there are plants and animals.

Plowing | Disking | Ripping

This does not have to do with snow in your driveway or a DJ. These are all different ways of turning over soil in a field. Farm practices vary across the country, but the soil is worked in the spring before planting or following harvest to reduce compaction, help prepare a seedbed and till in organic matter. Think of a roto-tiller for your yard and garden, but on a much larger scale.

Precision controlled seed placement

Can you tell exactly where you planted a flower? This recently developed tool allows farmers to monitor exactly where their seed is going. This helps them grow a uniform, even "stand" (crop) that is most likely to be healthy and have the best yield.



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Ruminant

Animals such as cattle, sheep, buffalo and goats have a unique stomach that is divided into four compartments, each that serve a different function. These can also be described as four stomachs, but it is actually divided in to different “rooms” called the rumen, reticulum, omasum and abomasum. Ruminants can convert otherwise unusable plant materials into nutritious food and fiber, which makes them great recyclers, turning grass and feed into meat and milk. If you had four compartments like a ruminant, you’d enjoy regurgitating your food and chewing your cud, too.

Silage

Fermented, chopped up feed, which ruminants love. Think of hops fermented into beer for a human example, though cows aren’t getting drunk off of their silage. It’s a base ingredient in most diets for ruminants. Types include haylage, corn silage, oatlage, etc.

Soil erosion

The corrosion of the soil is a farm’s greatest asset; many technologies and farming practices are focused on protecting soil. Wind and water are the greatest causes of eroding soil. Think about sand dunes eroding; it’s about the same concept in fields.

Soil testing

Samples of soil, usually plugs, are taken from various parts of a field to analyze the soil content and/or needs in a laboratory. Like a blood sample, a soil sample can tell a whole lot about the health of the soil.

Steer

A male bovine (beef or dairy animal) that has been castrated. This is done for safety, food quality and efficiency reasons. Castrated animals are much safer to handle, as bulls can be pretty mean—even without seeing anything red.

Sustainability

This term is thrown around the food plate so much that it could be a hot potato! There are many definitions, but we believe the true sustainability includes environmental, economic and community meanings. Consider your favorite local business. Will it be around long-term if they don’t take care of the environment, lack the income to sustain the business and fail to contribute to the community in a meaningful way? Likely not. The same is true on farms and ranches.

Urea

While also produced in your liver during the breakdown of protein, this refers to Urea used in agriculture. Urea contains 46% nitrogen, making it great fertilizer to feed plants such as corn, your lawn and other crops.

Yield monitor

This nifty tool allows a farmer to instantly see the yield while combining (harvesting) a field. When combined with a GPS device, it allows the data to be recorded along with location information that can produce a map showing how each area of the field yielded. It’s kind of like mapping out a report card for a field to see how well it produced.



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