

*“To make a prairie it takes a clover and one bee,
One clover, and a bee, And revery. The revery
alone will do, if bees are few.”*

– Emily Dickinson

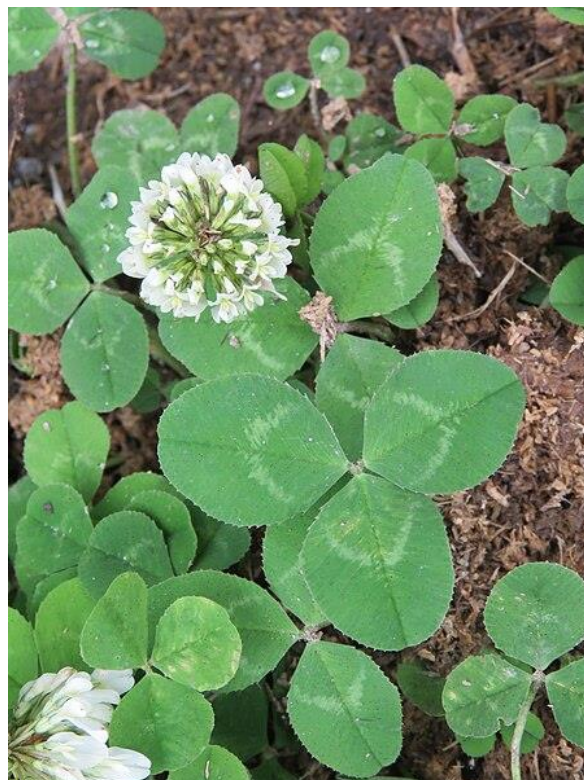
My Aunt Jessie was a four-leaf-clover-finding champion. She could glance at a patch of Dutch clover in the lawn and start plucking lucky specimens one after another. Those low-growing white-ball-flower plants are the only type of clover that I was aware of before I became a beekeeper, except perhaps Irish Shamrocks, which I didn’t realize is just a fanciful name for our familiar clover.

The term “clover” is a bit imprecise since there are over 300 plants within the genus *Trifolium*. They’ve all got three leaflets on each leaf stem (which is what “*Trifolium*” means) and flowers, but it is easy to become confused about the discussion of different types. Those “in the know” at beekeeping meetings philosophize on the value of one variety versus another, cherishing some and despising others. Those of us who know nothing more than “honey bees like clover” can be left feeling as if others are in the Illuminati and we didn’t get an invitation. What follows is a brief primer that hopefully will enable us to sit in the inner circle without appearing clueless.

What it’s good for

Clover is highly valued mixed with grass in pastures, and quite rightly. In the same taxonomic family as peas and beans, it is a legume that harbors *Rhizobium* bacteria which fix atmospheric nitrogen into the soil. So clover is self-fertilizing, with plenty of nitrogen left over for the surrounding grass. NC Cooperative Extension advises mixing clover into pasture, saying, “[A] stand of 30% clover will provide all the nitrogen needed to allow the grass component to yield at its optimum.”¹

¹ John Cothren, “Adding Legumes to Pastures”, *Cattle Call*, NC Cooperative Extension, January 2017 <https://wilkes.ces.ncsu.edu/wp-content/uploads/2017/01/extensioncattlecalljan2017.pdf?fwd=no>



White clover is likely the variety with which most people are familiar. Note the ball of white flowers and the light-green “V” on the leaflets.

Photo: Vinayaraj ([Wikimedia Commons](#))

Ironically, clover is considered a weed in conventional landscaping. Cooperative Extension also has advice on how to get rid of it, quite the opposite of the guidance issued on the agricultural side.

For beekeepers, clover is a major source of nectar and pollen all across the United States. Not only is it abundant, it blooms much longer than most honey plants. According to the NCSBA’s “Flowering Plants” guide,² here in the Piedmont clover commonly blooms from early/mid April to mid/late July, for a total of 102 days. Its importance is indicated by the fact that John Lovell devotes 14 pages of [Honey Plants of North America](#) to clover.

² NCSBA, “Flowering Plants” <https://www.ncbeekeepers.org/resources/flowering-plants>

In *American Honey Plants*, Frank Pellett says, “The clovers are by far the most important American honey plants. If we include the closely related alfalfa and sweet clover, they probably are the source of more surplus honey than all the other plants together. They are to be found in nearly every part of America and yield nectar more freely than most plants. The quality of clover honey is of the best and in quantity of yield it ranks high, under favorable conditions.” Notable for us in Piedmont North Carolina, he adds, “Clover seems to yield most heavily in the northern part of its range and gradually declines southward.”

White clover

We are probably most familiar with the species *Trifolium repens* (white clover) but there are cultivars underneath that as well as other very similar species. Georgia Cooperative Extension tells us that within *Trifolium repens* “There are three basic types of white clover: large (e.g., Ladino clover, ‘Patriot,’ ‘Regal’), intermediate (e.g., ‘Durana,’ ‘Osceola’), and low growing (e.g., Dutch clover).”³ They all look like the white clover we are familiar with, just differently sized. A distinguishing feature is that its leaves have a pale-green “V” near the base.

Some varieties do very well when close-grazed or mowed, contributing to its value as a pasture plant.

Alsike clover

Alsike clover (*Trifolium hybridum*) looks a lot like white clover but the flowers can have a pale pink tint. It is named for the town in Sweden where it was first described. The taxonomic name “hybridum” is a mistake; when naming it, Linnaeus thought that it was a hybrid of white clover and red clover but it is not. Lovell says that it thrives better in northern climates than southern ones. Bees love it wherever it is found. Note, however, that it doesn’t like being mowed, and if it is too



Alsike clover, like white clover, has flowers at the top of a bare stem.

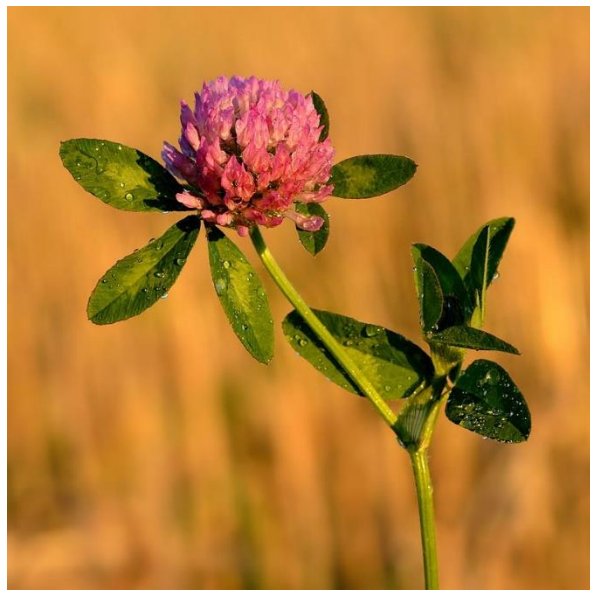
Photo: Ivar Leidus ([Wikimedia Commons](#))

concentrated in pasture it may lead to toxic effects in horses.

Red clover

Red clover (*Trifolium pratense*) also looks like regular clover but has dark pink flowers. It’s value as a nectar source is complicated and controversial. Due to the length of the flowers’ tubules, red clover is generally not considered a good nectar source for honey bees, except in years when drought stunts the growth of the tubules and thereby allows access. However, Lovell says that red clover can produce so much nectar that it partially fills the tubules, allowing honey bees to forage what they can reach. Regardless of their value for nectar, honey bees eagerly forage pollen from red clover and can be an important pollinator for the plant.

³ <https://georgiaforages.caes.uga.edu/species-and-varieties/cool-season/white-clover.html>



A distinguishing feature of red clover is the presence of leaves directly beneath the flowers.

Photo: Ivar Leidus ([Wikimedia Commons](#))

Red clover can be distinguished from alsike and white clover by the fact that the ball of flowers of alsike and white clover are at the top of a long bare stalk whereas with red clover, the ball is supported by leaves directly underneath.

Crimson clover

Crimson clover (*Trifolium incarnatum*) is a perennial but is grown as a winter annual in climates with hot summers, such as North Carolina. It does very well in that role. Lovell says, "Crimson clover has been listed as a good source of honey in North Carolina and several other southern states."

Crimson clover flowers form an elongated spike rather than a characteristic clover ball.

Sweet yellow clover

Sweet yellow clover (*Melilotus officinalis*) is a cousin of Trifolium clover: same botanical Family, different Genus. The "mel" (Latin for honey) in the name "*Melilotus*" implies its value as a honey plant. It has three leaflets but the flowers grow along a tall stalk, not in a ball. Unlike perennial *Trifolium repens*, sweet yellow clover is a biennial, mostly producing its root system the first year and its flowers the second.



Crimson clover flowers are in a large spike, not a ball.

Photo: 松岡明芳 ([Wikimedia Commons](#))

Ready to talk clover?

I assume clover-related confusion is not uncommon since I've had it too. A few facts that may make discussions at bee meetings a little more understandable and meaningful are:

- Ladino and Dutch clover are both cultivars of white clover. The difference is that Dutch clover grows closer to the ground than Ladino and is less likely to shade out surrounding plants.
- Don't confuse red and crimson clover. Crimson is the one that is supposed to be a better nectar source. Its flowers are in a spike and it is grown as an annual. But red clover can provide nectar under the right conditions and always provides pollen.
- Yellow clover is related to "regular" clover but its flowers aren't in a ball, so it doesn't have the classic clover appearance. (See photo on next page.)
- Clover leaves and flowers are commonly eaten by people. But issues have been reported with livestock eating too much yellow or alsike clover, so do some research before planting. A high percentage of clover as forage, not the mere presence of the plant, appears to be the critical issue.
- There are lots of different clovers; these are just a few. There is even a native Carolina clover (*Trifolium carolinianum*) on the coast, although it apparently is rare and has a very limited geographical distribution.

This celebration of our widespread, abundant, long-season nectar source should help explain why, if we go to Food Lion and buy a jar of US-made mass-market honey, it is almost always clover honey. People rave about its high quality and desirable light color. But we don't get much if any pure clover honey in North Carolina that I am aware of, although no doubt it is part of that wonderful mix we call "wildflower". That's just as well, because although I agree that the taste of clover honey is certainly not offensive and is even classic, it isn't very interesting. That's why, around here, we call it Ho-hum Honey and are thankful for our diverse, and delicious, nectar sources that the Piedmont is famous for!

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Sweet yellow clover has flowers along a stalk, not in a ball or spike.

Photo: Wikipedia