



Photos by Author

Pasture Weeds

—Ulf Kintzel

Weeds are called weeds because we named them as such. The word “weed” suggests something undesirable. Are they?

In any given well-managed pasture, we have grass species that we like to see. There are orchard grass and fescue; there are blue grass, timothy, and rye grass. These are the most common cool-season grass species that sheep eat and that offer nutritional value. Then there are legumes such as white, red, and alsike clover, bird’s-foot trefoil, and alfalfa. All these legumes offer high nutritional value and are readily eaten by sheep and goats.

So far so good. Reality has it that many pastures contain a whole lot more than these grass species and legumes. There are many plants that are considered weeds. Since I offer consulting services, most often used by beginning farmers, I am aware that many think these weeds must be eliminated in order to have good pasture. Furthermore, many of them think or are even afraid that the only way to renovate the pasture is by using herbicides or by plowing it up and reseeding it. I have good news for these folks on (almost) all fronts. In most cases it is unlikely that you will need to do any of that.

Let’s address the weeds that one could encounter in a pasture. When I walk through my grazing cells, I encounter wild carrots, chicory, Canadian thistle, narrow-leaf and broad-leaf plantain, crabgrass, milkweed, quack grass, pig weed, rag weed, burdock, white heath aster, musk thistle, spotted knapweed, hawkweed, bull thistle, prickly lettuce, sow thistle, dandelion, wild mustard, yellow rocket, lamb’s-quarter, hedge and field bind weed, black medic, bird vetch, Pennsylvania smartweed, curly dock, buttercup, and smooth bedstraw. Along the woods and hedgerows as well as along the permanent fence lines I have Tartarian honeysuckle, goldenrod, multiflora rose, brambles, New England aster, sumac, Virginia creeper, and wild grape. Some of these plants are widespread and can be found throughout my pasture. Dandelions and wild carrots (also called Queen Anne’s lace) are examples of that. Some of them have become rare due to grazing and exist mostly along edges and hedgerows, such as goldenrod and New England aster. Some are seasonal and are only around for a brief period of time in particular places. Rag weed and pig weed are examples of such weeds.

So, does my pasture sound weedy? In my view it isn’t because the dominant species are indeed my grass

species like orchard grass and my legumes like white and red clover. Furthermore, except for three of the listed weeds, I don't mind any of them or mind them very little. Some I even welcome. Why? Because they are readily eaten, and they are very nutritious. Many tests over the years have shown that weeds rival many grown pasture species in nutrients. In addition, a variety of plants always increases intake. Think of it as a buffet. The more variety there is, the more you eat. That may not be good for us humans. It is good when you are raising sheep. Since I always promote and encourage observation, take a moment when you let the sheep in a pasture cell with a variety of different plant species, including weeds. Watch a particular sheep eat and you will see that it will go from plant to plant, seeking variety. There are certainly plants sheep may favor over others at first, but the longer they eat, the more variety they seem to seek.

Furthermore, some of these different plants are likely to provide nutrients some other plants don't. Take for example very deep-rooted plants like chicory. Deep-rooted plants bring up nutrients such as zinc that are very beneficiary to animals. Others produce ingredients with health benefits such as broad-leaf and narrow-leaf plantain.

However, there are weeds that are undesirable, which I want to address individually. They are not as common in well-managed pastures, and some of them exist more along edges or spots that are different from the rest of the pasture:

The ground cherry is a poisonous plant. Under normal circumstances it is not eaten by sheep. While it can spread in certain spots, I have not found it widespread.

I don't currently have Carolina horsenettle in my pasture, but I am very familiar with it from my days in New Jersey. It is quite a prolific weed and I have no

good answer on how to control it. The sheep eat the fruit, looking like little tomatoes. It is in fact a member of the same nightshade family as the tomato. Mechanical control (mowing, bush-hogging) has limited success, if any.

The stinging nettle, while very nutritious, is not being eaten. However, unlike my experience in Germany, where the plant can cover lots of ground, I have only very few small spots where it grows, and it has not attempted to spread further over the past decade. It is for that reason that I don't see it as a problem.

Black as well as bittersweet nightshade grow here and there along some edges, and while it is poisonous, sheep don't eat it as long as they have plenty to eat. They are a nuisance, but I have never seen them spreading widely or rapidly.

If you are a gardener, you are probably familiar with ground ivy. It is a plant that spreads prolifically, and it is hard to eradicate. Sheep and goats don't eat it. I see it creeping in from the edges of my farm. It is a recent development, and I am uncertain how much of a problem it eventually will be. My orchard grass and clovers are not being displaced by the ivy.

Bull thistle and the similar musk thistle are biennial plants. Either plant establishes itself the first year but does not grow flowering stems. It is the second year when it flowers and develops seed heads. It is then when it is rather easy to reduce the numbers of these thistles successfully. It has to be done at a certain time. David, a friend of mine, told me "Kill it in June, and you will see it again soon. Kill it in July, and you can say goodbye." Years later, another friend of mine named David told me: *Peter und Paul macht die Wurzel faul*. That means starting in very late June and throughout the month of July is a good time to cut the thistle and say goodbye for good. Of course, when the plant is close to the end



These ragweeds established themselves after tiling this field. They are eaten and will soon be gone again.

of flowering or is already developing seed, it may still produce seeds after it has been cut. While the time of cutting is crucial, the success rate is potentially very high. I can't tell you how many barnyards I pass where lots of bull thistles and some musk thistles grow. It would be so easy to depress their growth.

The only weed I truly dread is the Canadian thistle. Unlike the biennial bull and musk thistles, the Canadian thistle does not only spread by seeds but also spreads by rhizomes, just like quack grass. In some spots my sheep and especially my goats eat the Canadian thistle. In other areas, they do not touch them. I have not figured out why that is. In any event, they are a problem. I was told that repeated mowing would reduce and eliminate them. With that in mind, the pasture with the most Canadian thistles was hayed for a couple of years. This field was a pumpkin field when we bought the farm. The thistles established themselves in great numbers when the field was reseeded. Mowing and haying it made no difference in the number of thistles. Bush-hogging them controls the further spread, but it does not kill them. So, if someone has some experience in getting rid of that weed, please let me hear it. Thus far I have only heard that it may be there because of a lack of certain nutrients. Even if that was true, it still doesn't give me a tool to kill it.

However, it is true that weeds can also be indicator plants. That means that more widespread growth can tell you that there is a certain prevailing condition in the area where they grow. For example, buttercup, poisonous but not eaten by sheep, may indicate that you have a water surface drainage problem. An abundance of broad-leaf plantain may indicate soil compaction. The presence of moss indicates acidic soils.

What is a good way to control the spread of weeds? A good rule of thumb is avoiding bare spots or thin growth in your pasture and instead having as dense of a pasture as possible. Bare spots provide ideal conditions

for weed seeds to get soil contact. In addition, like any other plant, weeds have to compete for water, nutrients, and light in the pasture. The more competitors they have, the harder it is for them to grow.

Another way of controlling the spread of weeds is bush-hogging the pasture before these weeds or most



of them start to develop seed heads. I bush-hog my pasture starting in late June and up to mid-August, one cell at a time after grazing. I do it to eliminate seed heads of all my grasses and thus rejuvenate the pasture and encourage vegetative growth, and also to control the spread of weeds.

Draining or tiling wetter areas will reduce the growth of certain weeds. A desirable pH level as well as soils not lacking in nutrients help reduce the establishment of weeds. Whatever else may be left to grow may very well be acceptable. That is particularly true if animals eat these weeds. Remember, the nutritional value of them may be as high as your established forage species.



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