

BARLEY CULTURE, by Jack Lazor of Butterworks Farm

Barley, along with wheat has been cultivated since before the beginnings of written history. In ancient Egypt it was used as food for man and beast as well as for beer making. Barley was the main source of grain for bread making in continental Europe until the sixteenth century. Feeding of domestic animals and malting are the two primary uses of barley today. The plant genus is divided into two main groups—six row and two row types. In general, two row barleys have larger, plumper kernels and are primarily used for malting purposes. The six row barley plant produces more and smaller kernels and is used more for animal feeding. Except for some hull-less varieties, the barley kernel is enclosed in a tightly fitting husk which is difficult to remove. Barley for human consumption must be pearled which is a very highly specialized process.

Barley will germinate under the same temperatures and conditions as wheat. It is a bit more sensitive to early spring frosts than the wheat plant, so it is probably best to wait until the wheat is all sown to begin planting barley. A well worked, friable, and uniform seedbed is essential for good germination and early growth. Fall plowing seems to work best in northern New England and southern Quebec. Sandy or well drained loam soils seem to grow the best barley crops. Excess moisture at any point in the growing season will stunt the plant. Barley has the most shallow rooted of all the cereal grains grown in our region. For this reason it is necessary to have adequate fertility in the upper horizons of the soil. If manure is used, it is best to apply it the previous fall at time of plowing or fitting the ground. Tine weeding is probably more destructive to a barley crop than any

other cereal because of the plant's minimal root mass. Early planting is more effective for weed control than tine weeding.

Barley also has the weakest straw of any of the commonly cultivated cereals. It also has the shortest growing season, usually taking only ninety days from seeding to harvesting. Barley plants are awned or bearded, having tufts of hairs or spikelets protruding from the head of grain. These little spikelets are attached to each kernel of grain and can be difficult to remove in the threshing or combining process. Some fanning mill type seed cleaners are equipped with a "debearder" for this very purpose. A prompt and expeditious harvest will produce the best quality barley. Since its straw is weak, barley will lodge easily when it is almost ripe. Prolonged exposure of ripe grain to moisture like rain and dew will darken the color and lower the germ of the grain. For this reason, many farmers have begun to harvest barley a bit earlier at higher moistures. Drying can be completed in a flat bottom bin with floor aeration. Field drying can be accelerated by reaping (with a grain binder) or swathing with a draper head when the grain is in the hard dough stage. At this point, field dried grain is hauled by the bundle to the threshing machine or combined with a windrow pick-up attachment. Final grain moisture should be thirteen per cent or lower for long term storage.

Barley can be a wonderful crop for a northern grain grower. Protein content can reach 13%. It has as much energy as corn, but the carbohydrate in the barley endosperm is a bit more soluble and rapidly digested than corn. A 50:50 ratio of barley and corn makes a very nice ration when mixed with the appropriate amount of protein. Canadian field peas can also be grown along with barley to raise the protein of the harvested grain. Peas are now available in determinate types and these are the best mates with barley

because they will ripen all at the same time to avoid “green” or unripe grain mixed in with the finished sample. Twenty-five per cent is the magic number for mixing peas and barley together. Grain proteins as high as 18 or 20 per cent have been achieved using a barley/pea mixture. If you are planning on using your own seed to plant next year’s crop, a germination test is essential. Wet weather will impact the final germ. Beautiful, bright looking, plump barley can have low germ. This is also true for barley intended for malting where germination must be 95% or better. Perils and pitfalls can belie any barley grower. However, a bin full of barley (even if the germ is low) can be a real pleasure to feed to one’s animals.