# Buckwheat

*by*

*Samuel Kaymen*

The first thing to consider is the condition of the piece of ground you wish to green manure. A very poor piece, one that supports a thin growth of weeds that seem to flower very early, needs nitrogen. Such a worn-out piece could be the result of poor soil management or direct abuse by chemical "fertilization" and/or toxic biocides. Green manuring is an excellent way to bring such a piece back to health and vigor, and consequently, high quality productivity. It's not easy or cheap, especially if you intend to heal with entirely vegetive growth. If you can, obtain some animal manure, for it will greatly speed up the healing process. The readily available nitrogen will not only promote lush crops of non-legumes, but as well the biological life.

Assuming you have such a poor piece of abused, exploited, and mismanaged earth, one way to start is to make use of the weeds that grow there naturally since their very function is to improve the soil. Left to nature, this would take a long time. But we can speed the process by incorporating the weed crop into the living (and let's assume there is some life left) layer of the soil. Then allow the weeds to germinate and grow up again. Always incorporate the weed crop at the time they are young, green, succulent, so they will decompose very rapidly providing an immediate release of soluble materials that will benefit the next crop (1).

If your piece of earth has a little grass growing with the weeds, you don't have to "weed fallow"the ground for a season. You can start immediately with the first green manure crop to use on poor land, i.e., Buckwheat. (2) This wonderful plant has the ability to make use of minerals in the soil to better advantage than many others. Since it accumulates calcium, its decomposition sweetens the soil. It's an effective crop in competing with weeds and will not allow most to grow up to make seed. Since it does well on acid soils, it's an excellent green manure to start with. After a crop of Buckwheat has been decomposed the soil's physical condition is much improved, softened, fiberized and mellowed. Therefore, it's an excellent crop to preceed a crop that has a very small, fine seed. Buckwheat is available in 50-lb. bags or in 48-lb. bushet bags. You should broadcast it at about 100 lbs. of seed per acre, or 1/4 lbs. seed for 100 sq. ft.

If you sow Buckwheat after July 4 it will make good growth, for it likes to make its flowers in cool, moist weather. (3) At about 10% bloom is the time to till it in. (4) If you have access to animal manures and ground rock soil amendments, such as rock phosphate, granite dust, dolomite limestone, all should be spread on the green manure crop before incorporating it into the living layer of the soil.

After Buckwheat, the next green manure to be used as a winter cover crop as well as a soil improver is a combination of Winter Rye and Hairy Vetch. If the combination is sown before August 20 the Vetch will have a good chance to make sufficient root growth to survive the winter. (5) Since the Vetch is a legume, it should be innoculated with its appropriate nitrogen-fixing bacteria, which will insure good growth on poor soil, especially where no Vetch has been growing for a long time. For less than one dollar, most feed stores will sell you enough innoculant for a bushel of seed.

The mixture should be Balbo Rye at the rate of 110-140 lbs. per acre and Vetch at the rate of one bushel (60 lbs) per acre. (For less than acre rates, just remember that one acre is 209 feet x 209 feet or about 44,000 sq. feet.) The mixture should be broadcast by either hand or a "Cyclone" type hand seeder. This mixture can be sown between the rows of vegetables after your last cultivation in August. So if you can't green manure your whole piece of ground because of crops, then you can at least get between the crops. That points out one of the most serious problems of "survival fields" where most crops occupy the ground way into the Fall when it's definitely too late for Vetch, even sometimes too late for Rye. For Rye to winter well it must make sufficient root and top growth. One way to solve this problem is to intensively plant half your space every other year while you green manure and soil build it on alternate years. (6)

## Notes, Cont'd

If you want to get a seed crop, plant between June 15 and July 4, or figure twelve weeks before your fall frost. This is because the plants remain succulent throughout the period of seed formation, and will be difficult to thrash or combine unless a frost has killed their non-hardy foliage, after which the plant quickly dries out, providing the fall weather is not too damp. (You can see the obvious risk here, with our typically wet autumn.)

Buckwheat grows so fast that you can get two full green manure crops in one season, then seed to winter wheat or rye, or do one early buckwheat crop, and then plant fall vegetables or a seeding of biennial sweet clover.



(5) If you can't get the Vetch in this early, don't waste the seed, as it's rather expensive. You can plant rye by itself until October 1. Incidentally, if your feed store doesn't carry a particular field seed, try the Shumway Catalog—R.S. Shumway, Seedsman, Rockford, Illinois.

(6) By "survival fields," Samuel is referring to his concept of "survival agriculture for the Northeast"—see his article in the Fall 1977 ROOT - DRINKER. In the near future, farming in the North will have to become more diverse, as fossil fuel costs go so high that we can't afford to import most of our food from other parts of the nation and world. This will require changes in our diet and skillful use of every warm day in our relatively harsh climate. Hence, the practice of interplanting one crop into another that hasn't been harvested yet.