



The Field.

Buckwheat.

This plant belongs to a class to which the botanical name *Polygonaceæ* is applied. The rhubarb, sorrel dock, and knotweed belong to the same family. Buckwheat is not properly a cereal, though it produces a seed which is edible, and forms, indeed, a wholesome and nutritious food for man. There are several species of this plant that yield grain; the one in common cultivation being known among botanists as *Polygonum sagopyrum*. It is called *Polygonum* because of the angular form of the seed, and *sagopyrum* from its resemblance to the beech-nut or beech-nut. The name buckwheat is a corruption of the German *buch-weizen*, which signifies beech-wheat, from the similarity of the seed to that of the beech-tree. It is called wheat, because the grain when ground produces a fine farina, not unlike that obtained from wheat.

The variety of buck-wheat now in common use is said to be found wild in Persia. According to some authorities, it was introduced into Europe by the crusaders, others say the Moors brought it into Spain from Africa; and hence it has in France the name of *bled Sarrasin*. In China, Japan, and Russia, it forms a considerable part of the food of the inhabitants. It is also consumed largely in Switzerland, and the southern parts of France. In Flanders, much attention is given to its culture. It seems to have been considerably cultivated in England towards the close of the sixteenth century, especially in the counties of Lancashire and Cheshire. It does not seem to have made great progress in Britain, and though it is often used for ploughing under as green manure, has received less attention than it is entitled to. Considering its many excellent qualities, it is rather surprising that it is not more highly appreciated as an article of food. It is largely grown in the United States, and "buckwheat cakes" are considered a delicacy in all parts of that country. It is grown and used for human food only in those parts of Canada where American settlers or their descendants have located. Old country people seem, in many instances, to have conceived a prejudice against it. Two peculiarities recommend it for culture and food in northern latitudes: the first is that it requires but a short season for growth and ripening, the second that "buckwheat cakes" have a warming property, very grateful and wholesome to the system in cold weather.

The seeds of buckwheat form an excellent food for cattle. Many dairymen use this grain largely for milk cows. Others only feed the bran to their cows and sell the flour. This practice is said to increase the quantity of the milk, but very perceptibly to lessen its richness, so that in reality it pays to feed

the grain in its entirety to milk cows, unless indeed the dairyman belongs to the class who count in the pump as their best cow, and go in for quantity only, believing that "milk is milk anyhow." It is also a good green forage plant for cows and other cattle, and is by many cured like hay for winter use, but the curing process is difficult, and the value of the dry plant for fodder small. Buckwheat is very fattening for poultry and hogs. It is often sown in England to encourage game, particularly pheasants, which are very fond of it. Among its other good qualities it forms, when in blossom, excellent bee pasturage. It does not, indeed, make first-class honey for table use, but the apiarian who has buckwheat to count on, can appropriate the honey got from white clover, basswood, &c. to his own use, leaving the bees to help themselves to a stock of that yielded by buckwheat blossoms. The recent invention of the honey-emptying machine renders this quite easy of management and greatly increases the value of the buckwheat as a honey plant.

One of the most useful purposes to which this plant may be applied is ploughing down to increase the fertility of the soil. It is less valuable for this purpose than clover, but then it requires less time for its production, and will grow on soil too poor to raise clover. For green manure, it should be sown tolerably thick, and turned under when in greatest vigor and full blossom. There is no difficulty in ploughing it under neatly, if a logging chain or skin coulters be used to bend the green mass ahead of the plough. In England a very high value is attached to this crop as a green manure. "We cannot," says an agricultural writer in that country, "too much recommend the employment of this precious plant as a manure. It is certainly the most economical and convenient the farmer can employ. A small quantity of seed costing a mere trifle, sows a large surface, and gives a great crop. When in flower, first roll and plough it in, and it is soon converted into manure." It is also an excellent cleanser of the soil, its dense rapid growth giving it the start of all weeds, and enabling it to smother them down most effectually. It is said to be an exterminator even of couch-grass, and that is the highest praise it could possibly have as a weed-killer. Poor, sandy soils are often reclaimed in Britain by sowing buckwheat to be ploughed under as manure for first crop of turnips. The turnips are then fed off to sheep, whose droppings will enrich and consolidate the ground and, next, for a crop of wheat, or of clover and grass &c. When buckwheat is cultivated as part of a regular rotation of crops, it comes in after the land has been somewhat exhausted by preceding crops of grain, and is resorted to when there is a lack of manure, as there usually is. It yields a better return than oats, and leaves the land in higher condition. The fact that a fair crop of buckwheat can be got off poor soil, is taken advantage of by some slipshod farmers, and land is put through the last stages of ex-

haustion, until at length, "too poor for buckwheat" is the phrase descriptive of its utterly worn out condition.

Buckwheat is of easy culture, and but few directions need be given for its management. It does best on light sandy soils, though almost any soil will produce it, and should be grown without direct application of manure, which tends to promote a too rank growth of haulm or straw. Being a native of warm latitudes, and very susceptible of injury from frost, it should never be sown until settled warm weather. It may be put in any time from about the tenth of June until the middle or end of August. In order to a good crop of grain, cool nights and hot days are necessary; it should therefore come into the field after the extreme summer heat is passed. With favorable weather, it comes on very fast, maturing in nine or ten weeks from sowing. From the seed to a bushel of seed per acre, will suffice. The better the land, the less seed should be sown. It will yield from twenty-five to thirty bushels to the acre, ordinarily, though under specially favorable conditions, a far larger yield may be obtained. Early in the season, a more luxuriant growth of straw, and a smaller yield of grain will be had than if sown late. As many as three crops have been grown and ploughed under in a single season. When the object is thoroughly to clean and reclaim, foul, weedy, or poor land, nothing is better than ploughing down successive growths of this plant. This course lessens the advantages of summer fallowing in both cleaning and enriching land.

Buckwheat is usually cut with the scythe, though it is better done with a cradle, so as to bind the crop in small sheaves. The seed is but loosely held on the stalk when ripe, and hence care is required in harvesting it, lest a large portion of the produce shell out and be lost, or what is worse, in some cases re-seed the ground. Want of care in harvesting the ripe grain, has led to an objection to this crop, on the ground that it is difficult to get it out of the soil. Some prefer pulling to cutting buckwheat. If thus harvested, and the work done when the dew is on the plants, but little grain is wasted. It dries slowly and should be threshed as soon as it is in proper condition, since there is danger of its heating. The best way is to thresh it as fast as it can be drawn from the field, on a sunny day. Some years since, quite a controversy was carried on in the agricultural papers as to the safety of feeding the straw to stock. In some instances, it was testified that it had been found unwholesome for sheep. But these cases were very few, and the probability is that not all of them could fairly be attributed to the supposed cause. Some high authorities urged the opinion that where unfavorable effects could be traced to the use of buckwheat straw, it was owing to a deficiency of lime in the soil on which it was grown. It is certain that a good supply of lime in land is necessary to the best results in growing this crop.