



Extension FactSheet

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Buckwheat in Ohio

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Buckwheat is one of the less important grain crops grown in the United States. Because of its minor importance, knowledge of its culture is rather limited. Buckwheat is unable to compete economically with other grain crops on very productive land. Under good growing conditions, yields of 1,000 – 2,000 pounds per acre are common; however, Ohio farmers have been growing 800 pounds per acre. Buckwheat's most important use is for buckwheat flour.

Adaptation

Buckwheat will grow under a wide range of soil conditions. It grows best in a cool, moist climate but is sensitive to spring and fall frost and to high temperatures, as well as drying winds and drought, especially at flowering. Cool nights and high humidity are ideal for buckwheat growth. Buckwheat has a tendency to lodge due to wind or heavy rainfall and does not possess the ability to recover from lodging as do some other crops.

Buckwheat performs relatively better under poor soil conditions than small grain crops, but on fertile soils the small grains normally produce more value per acre. Buckwheat plants have a taproot with numerous lateral roots that may extend three to four feet into the soil. Buckwheat is best suited to light textured, well-drained soils ranging from sands to loams.

Fertility and Planting

Seedbed preparation is similar to that for other cereal crops. Buckwheat has an excellent ability to scavenge nutrients from the soil and needs little nitrogen to produce good yields. In fact, if nitrogen levels are too high, lodging will become a serious problem. Nitrogen fertilizer application should not exceed 40 pounds per acre. Use of animal manures often causes serious lodging due to excessive nitrogen. Good levels of phosphate are necessary, and the rates recommended for wheat are appropriate for buckwheat. When a soil test indicates fertilizing at maintenance levels or above, it is probably not economical to fertilize buckwheat. Buckwheat tolerates acidic soils but will respond to liming.

Seeding 40 to 50 pounds per acre using a grain drill, and planting one to two inches deep will produce good stands of

buckwheat. Buckwheat plants branch extensively and tend to compensate for thin stands.

The most desirable seeding date is from June 15 to July 1. It is seldom advisable to seed later than July 15. The seeding time for any given locality may be determined fairly accurately by allowing a period of 12 weeks for growth before a killing frost is expected. With the soil temperatures normally expected in late June, plants will emerge in about a week. Flowering will begin in five or six weeks, gradually increasing to a maximum and then decreasing. Some flowers continue to appear until the crop is harvested or frosted, because of its indeterminate growth habit. The first grain begins to ripen three to four weeks after flowering starts, and ripening continues until frost.

Pest Control

Buckwheat suffers relatively little from diseases or insects. Because it is fast-growing, it generally outgrows most weeds that may emerge after planting. There are no herbicides labeled in the United States for control of weeds in buckwheat. Buckwheat is sensitive to most common herbicides, so you must consider herbicide use on the prior crop. Planting in a clean seedbed, on fields with good drainage, should eliminate most of the problems from weeds or other pests. Perhaps the biggest pests are wildlife, which often enjoy roaming through buckwheat fields and feeding before harvest. Avoid small fields surrounded by wooded areas where deer or birds are prevalent, unless you are using buckwheat for wildlife feed.

Harvesting

The buckwheat crop is generally direct harvested with a combine, and problems may occur due to the indeterminate growth habit of this plant.

Harvest when 90 to 95 percent of the seeds on the stem have turned the mature black/very dark grayish-brown color and less than 10 percent have shattered. Direct combined grain should be dried by low-temperature drying (never above 110° F), to dry any high-moisture or green seeds. Undried, they will mold and create heat in storage. During harvesting, take care to keep cracking of the hulls to a minimum because cracking affects quality. Buckwheat can be stored safely up to 16 percent grain moisture.

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