



Buckwheat

Fagopyrum esculentum

Buckwheat is a short season annual with a delicate, fibrous root system. Since it establishes quickly, it is useful for weed suppression. It also mellows the soil while improving aggregate stability. Classic uses include: ground cover after early vegetables, cover before planting strawberry beds, and bringing idle land into production.¹ Buckwheat does well in low-fertility soils. It is a scavenger of phosphorus and calcium and mineralizes rock phosphate, making these nutrients available for later crops. Residue from the succulent buckwheat plants decomposes quickly. Buckwheat uses the shortest window of opportunity of any cover crop.



<i>Land preparation</i>	A well-prepared seedbed is necessary for a quick start for the crop. Avoid wet spots; buckwheat will not recover from flooding. Use minimal fertilizer. On established vegetable ground, residual nutrients are sufficient.
<i>Seeding rate</i>	50 lb/ac drilled, ½ - 1 in. depth. 70 lb/ac broadcast, \$25-35 /ac.
<i>Seeding date</i>	June -July. It can be planted as early as May 20 or as late as August 30 but will give less growth. ²
<i>Seed sources</i>	Birkett Mills, Lakeshore Organic Grain, Agriculver, Ernst Conservation Seed.
<i>Maintenance</i>	No pesticides needed; a good crop for organic rotations. Heavy rain reduces emergence; reseed if necessary. A well-established buckwheat canopy completely covers the ground. Plants often wilt during hot days but quickly recover.
<i>Control</i>	Mow 35- 40 days after seeding or incorporate 35- 45 days after seeding to avoid volunteers. ³ The right time is when the field has just turned white with flowers.
<i>Tips</i>	Do not plant into hard soil. Buckwheat will not break up hardpan. Flooding stops growth permanently. Weeds will grow in any gaps over 10 inches. Parasitic wasps, ladybugs, and hoverflies are beneficial insects that are attracted to buckwheat. Harmful insects, such as tarnished plant bugs and aphids, are also attracted. However, aphids can serve as a food source for the beneficials. ⁴

¹ <http://www.hort.cornell.edu/bjorkman/lab/buck/guide/whygrow.php>

² Björkman, Shail, unpublished research.

³ Björkman, Shail. 2013. [Using a Buckwheat Cover Crop for Maximum Weed Suppression after Early Vegetables.](#) HortTechnology 26:575-580

⁴ Hendrickson J. 2003. Cover Crops on the Intensive Market Farm, University of Wisconsin-Madison College of Agriculture, Food and Environmental Sciences. Björkman, T. and J.W. Shail. 2014. Cornell cover crop guide for buckwheat. Cornell University. 2pp. Ver. 1.140402