

Buckwheat (*Fagopyrum esculentum*)

Buckwheat is a commonly used summer cover that is loved by pollinators and beneficial insects. It is sometimes planted as a companion crop or living mulch in order to provide habitat for beneficial insects. It will emerge rapidly and grows quickly, but is not drought tolerant. It will produce viable seed in as little as 30 days and will reseed. Due to this quick growth it is an ideal cover crop for growers that may have a short window between plantings and would like to have some type of ground coverage. Late plantings in August will not produce as much biomass as earlier plantings. Farmers use it most often in summer cover crop mixtures.

Recommended Varieties

Variety	Reasons Why	Source
Mancan	Good growth and larger seeds, stems, and leaves.	Jimmy Carter Plant Materials Center data, Southeast AgriSeeds
Lifago	Larger leaves and later bloom.	Southeast Agriseeds

Planting Information

Information	Comments	Source
Drilled Seed Depth (inches)	½ - 1 ½	Managing Cover Crops Profitably
Drilled Seeding Rate (lbs/acre)	40 - 60	Managing Cover Crops Profitably
Broadcast Seeding Rate (lbs/acre)	90 - 100	ARS Fact Sheet

Termination Information

Information	Source
<p>Most vegetable farmers use mowing and incorporation for termination. Flail mowers provide the finest residue and most even distribution, but rotary mowers can be used. Small scale farmers can use weed-eaters on smaller beds. Residue should be incorporated as soon after mowing as possible. Leave at least 2 weeks for residue to decompose before planting. Because plants are succulent compared to other cover crops, decomposition is fairly quick. Decomposition is greater in moist, warm conditions. If the soil is dry then irrigation may be necessary. Cool soils conditions will lengthen time needed before planting.</p> <p>Terminate within 7-10 days of flowering to reduce seed setting and germination. Buckwheat is frost sensitive, but will not winterkill before setting viable seeds.</p>	Managing Cover Crop Profitably

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Cultural Traits

Traits	Comments	Source
Typical Dry Matter Range (lbs/acre)	1,000 - 4,000	ARS Fact Sheet, Jimmy Carter Plant Materials Center data, Managing Cover Crop Profitably
Typical Total N Range (lbs/acre)	Not applicable	
Life Cycle	Summer annual legume	
Growth Habit	Upright	
Preferred Soil pH	5.5 - 6.5	Midwest Cover Crops Council Selector Tool
Relative Seed Cost (\$/acre)	\$\$\$\$	Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	50°	Midwest Cover Crops Council Selector Tool
Cautions	Reseeds easily. Kill as soon as flowers begin. Do not use if field has a nematode problem. Buckwheat can harbor lesion nematodes.	USDA Buckwheat Plant Guide; Clemson

Sources:

ARS Fact Sheet:

<https://iapreview.ars.usda.gov/SP2UserFiles/Place/60100500/FactSheets/FS04k.pdf>

Jimmy Carter Plant Materials Center Annual Reports:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ga/plantsanimals/?cid=nrcs144p2_022076

Managing Cover Crops Profitably: <https://www.sare.org/Learning-Center/Books>

Midwest Cover Crops Council Selector Tool - Missouri Data:

<http://mccc.msu.edu/covercroptool/covercroptool.php>

Southeast AgriSeeds:

<http://www.southeastagriseeds.com/cover-crops/>

USDA Buckwheat Plant Guide:

https://plants.sc.egov.usda.gov/plantguide/pdf/pg_faes2.pdf