

BUCKWHEAT

COVER CROP FACT SHEET FOR IOWA

Buckwheat (*Fagopyrum esculentum*) is a summer annual broadleaf that establishes and matures quickly, helping to suppress weeds and fight soil compaction. Buckwheat attracts beneficial insects and pollinators.



Identifying Features

- » Coarse, branched stems
- » Large, broadly arrow-shaped leaves
- » Alternate leaves
- » Leaf veins may be a reddish color

Cultural Traits

- » Summer annual broadleaf
- » Minimum germination soil temperature: 50° F
- » Cold temperature tolerance: 32° F
- » Seeding date: Mid May to Early September*

Planting Information

- » **Drill** at ½ - 1 inch (45 lbs./acre PLS**)
- » **Broadcast** (50 lbs./acre PLS)
- » **Aerial** is not recommended

*Planting information from Midwest Cover Crop Council (midwestcovercrops.org). Refer to local NRCS office recommendations (Iowa Field Office Technical Guide, Section 4, 340 Cover Crop) for seeding dates and rates pertinent to location specific financial assistance program requirements.

**Pure Live Seed

Additional planting information:

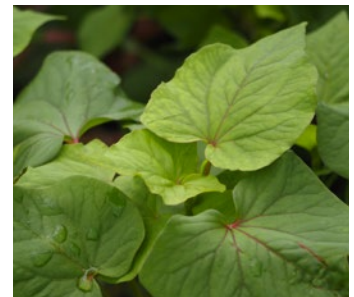
- » ~20,000 seeds/lb.
- » Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.
- » When interseeding, time seeding to match the appropriate crop growth/maturity.



Buckwheat Seed



Buckwheat seedling



Buckwheat leaves



Buckwheat interseeded into corn. (Photo by Robert Harvey)

C:N (Carbon:Nitrogen) Ratios

- » Buckwheat 8:1 to 32:1

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Buckwheat begins to bloom white flowers.



Buckwheat cover crop grows between corn rows. (Photo by Robert Harvey)

Performance

Dry matter = 500 - 2,500 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

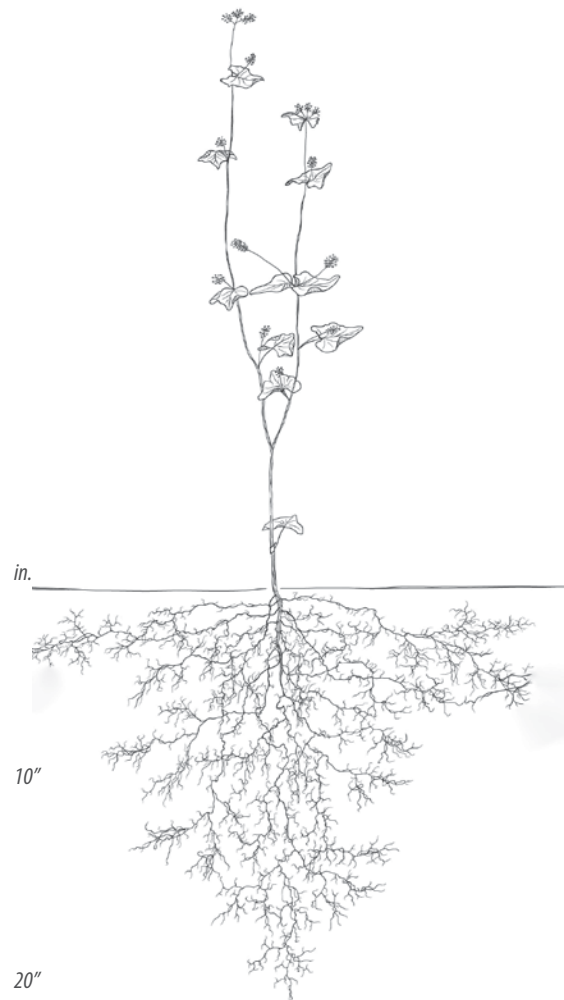
Performance Ratings

» Cash crop interseed (<i>early vegetative</i>)	Poor
» Cash crop overseed (<i>late seed fill</i>)	Poor
» Grazing quality	Fair
» Mechanical forage harvest	Fair
» Nitrogen fixer	N/A
» Nitrogen scavenger	Good
» Weed suppression	Very good
» Compaction fighter	Good
» Erosion control	Fair
» Lasting residue	Poor
» Quick grower	Very good
» Drought tolerance	Fair
» Low fertility tolerance	Good
» Shade tolerance	Poor

Additional Considerations

- » Buckwheat is highly attractive to Japanese beetles.
- » Susceptible to white mold; sensitive to frost; does not germinate in cold soil; sensitive to herbicides.
- » Buckwheat goes to seed quickly; termination timing should be considered.

Buckwheat Plant and Root Structure



Drawing provided by Conservation Cropping Systems Initiative (ccsin.org)

This fact sheet is a collaborative effort of USDA's Natural Resources Conservation Service (NRCS) and Iowa State University Extension and Outreach to provide cover crop options and information for Iowa landowners.