

*Broadleaves*

# Buckwheat

## AS A COVER CROP IN OHIO

This fact sheet summarizes information specific to Ohio that is available from the Midwest Cover Crops Council. For more information, see the *Midwest Cover Crops Field Guide, Third Edition*, and the Cover Crop Selector Tool found at: [midwestcovercrops.org/selector-tool/](https://midwestcovercrops.org/selector-tool/)



Photo credit: Rachel Cochran, OSU Extension

### *Fagopyrum esculentum*

#### Identification Information

- Single, multibranched stems
- Abundant white flowers
- Dense, fibrous root system

#### Cultural Traits

- Summer annual
- Minimum germination temperature: 50°F
- Reliable establishment window (state average): June 11–Sept. 28
- Semi-upright to upright growth habit: 2–5 feet
- Preferred soil pH: 5.0–7.0
- Can self-seed; very easy to grow

**Heat tolerance:** Good

**Drought tolerance:** Good

**Low fertility tolerance:** Excellent

**Winter survival:** Expected winterkill

Individuals participating in financial assistance programs are required to follow NRCS Appendix A regarding seeding rates and dates. Failure to do so will jeopardize payments. Appendix A can be found in Ohio's Field Office Technical Guide, Section 4, Ecological Sciences Tools: <https://efotg.sc.gov.usda.gov/#/state/OH/documents/section=4&folder=-6>

#### Planting Information

- Drilled at ½–1 inch
  - 20–35 lbs./acre (pure live seed)
- Broadcast with shallow incorporation
  - 22–40 lbs./acre (pure live seed)
- Broadcast without incorporation
  - 24–42 lbs./acre (pure live seed)

#### Additional planting information:

- 20,400 seeds/lb.
- Increase seeding rate when planting on slopes.
- Broadcasting without incorporation is usually less dependable than drilling or broadcasting with incorporation.
- When interseeding, time seeding to match appropriate crop growth/maturity.

#### Performance

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

**Nitrogen scavenger:** Good

**Soil builder:** Good

**Weed fighter:** Excellent

**Quick growth:** Excellent

**Grain seed harvest:** Good

**Cash crop interseed:** Very good



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### Termination Information

- Tillage
  - If terminating with only tillage, multiple passes are often required.
- Chemical
- Winterkill

#### *Additional termination information:*

- Buckwheat goes to seed quickly and must be terminated before seed development.
- Caution should be used to prevent weed potential and impact on subsequent crops.
- Follow NRCS guidelines for cover crop termination dates for crop insurance compliance.

#### *Additional performance information:*

- Rates poor for early interseeding
- Very frost sensitive
- Phosphorus scavenger
- May resolve symptoms associated with penetrans root lesion nematode and verticillium wilt
- Weed suppression dependent on early planting

### Potential Advantages

#### SOIL IMPACTS

<b>Frees P and K:</b>	Excellent
<b>Compaction fighter:</b>	Excellent
<b>Disease:</b>	Good
<b>Allelopathic:</b>	Very good
<b>Chokes weeds:</b>	Excellent

#### OTHER

<b>Attracts beneficials:</b>	Excellent
<b>Short windows:</b>	Excellent

### Potential Disadvantages

**Delayed emergence:** Occasionally a minor problem

**Increased weed potential:** Could be a minor problem

- Regrowth and volunteer plants could be a problem if terminated after seeds become viable.
- Buckwheat sets seed quickly and could pose a weed problem.

**Increased insects/nematodes:** Occasionally a minor problem

- Buckwheat is highly attractive to Japanese beetles.

**Hinders crops:** Occasionally a minor problem

**Other:**

- This cover crop is susceptible to white mold.
- Buckwheat is very frost sensitive and does not germinate/thrive in cold soil.
- Contamination of buckwheat in wheat can affect wheat exports to Japan.
- Buckwheat is sensitive to several herbicides.

### Contributors

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*(Note: This publication was adapted with consent from MCCC with content from the Midwest Cover Crops Field Guide, Third Edition, and Cover Crop Selector Tool: [midwestcovercrops.org/selector-tool/](http://midwestcovercrops.org/selector-tool/).)*

The Midwest Cover Crops Council ([www.midwestcovercrops.org](http://www.midwestcovercrops.org)) aims to facilitate widespread adoption of cover crops throughout the Midwest by providing educational/outreach resources and programs, conducting new research, and communicating about cover crops to the public.

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