

MUNG BEAN

COVER CROP FACT SHEET FOR IOWA

Mung Bean (*Vigna radiata*) is a quick growing, drought tolerant summer annual legume that serves as a strong cover crop for nitrogen fixation and soil health purposes.



Photo courtesy of Iowa State University

Identifying Features

- » Short, stiff hairs on leaf surface, edges and stem
- » Trifoliate compound leaf
- » Larger, rounder leaves than soybean

Cultural Traits

- » Summer annual legume
- » Minimum germination soil temperature: 59° F
- » Cold temperature tolerance: 32° F
- » Seeding date: Mid May to Early August*

Planting Information

- » **Drill** at 1 - 2 inches (15 lbs./acre PLS**)
- » **Broadcast** (18 lbs./acre PLS)
- » **Aerial** (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:

- » ~7,000 seeds/lb.
- » Rhizobium inoculation is recommended to optimize nitrogen fixation.
- » Broadcasting without incorporation is usually less dependable than drilling.



Mung Bean Seed



Mung bean pods and leaves



Overhead view of mung beans.



Mung beans growing in a field.

C:N (Carbon:Nitrogen) Ratio

- » Mung Bean 16:1

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Mung bean pods and leaves.



Mung bean sprouting through the soil.

Performance

Dry matter = 500 - 2,000 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

Performance Ratings

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

Additional Considerations

- » Mung beans do not perform well in compacted soils.
- » Perform best in dry conditions or well-drained soils.
- » Mung beans are susceptible to common foliar diseases.

Mung Beans



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.