USDA U.S. DEPARTMENT OF AGRICULTURE

HAIRY VETCH

COVER CROP FACT SHEET FOR IOWA

Hairy Vetch Seed

Hairy Vetch *(Vicia villosa)* is a legume cover crop that can provide an excellent nitrogen source. It grows slowly in the fall, but root development continues over winter, providing energy for quicker growth in the spring.

Identifying Features

- Pinnately compound leaves
- Small hairs visible on stem and leaflets
- Butterfly shaped stipules
- Leaflet tips come to distinct point
- Leaves have tendrils

Cultural Traits

- Cool-season/winter annual legume
- Minimum germination soil temperature: 60º F
- Cold temperature tolerance: -20º F
- Seeding date: Early August to Mid September* (F)***
- Seeding date: Early April to Late May* (S)***

Planting Information*

- **Drill** at ½ - 1 inch (12 lbs./acre PLS**)
- **Broadcast** (14 lbs./acre PLS)
- **Aerial** (16 lbs./acre PLS)

** 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*
**** F=Fall S=Spring*

Additional planting information:

- ~16,000 seeds/lb.
- Planting in a mixture can enhance performance as a cover crop.
- Broadcasting without incorporation is less dependable than drilling.
- Hairy vetch has a hard seed and can become problematic as a weed.
- Hairy vetch is slow to establish.
- If growing for nitrogen production, consider using inoculation.

A close-up of hairy vetch.

Hairy vetch leaves.

Cereal rye and hairy vetch mix. (Covers & Co.)

C:N (Carbon:Nitrogen) Ratio

Hairy Vetch	10:1 to 19:1

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Hairy vetch grows in a cover crop mix.

Hairy vetch grows in a central Iowa field.

Performance

Dry matter = 1,800 - 4,000 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

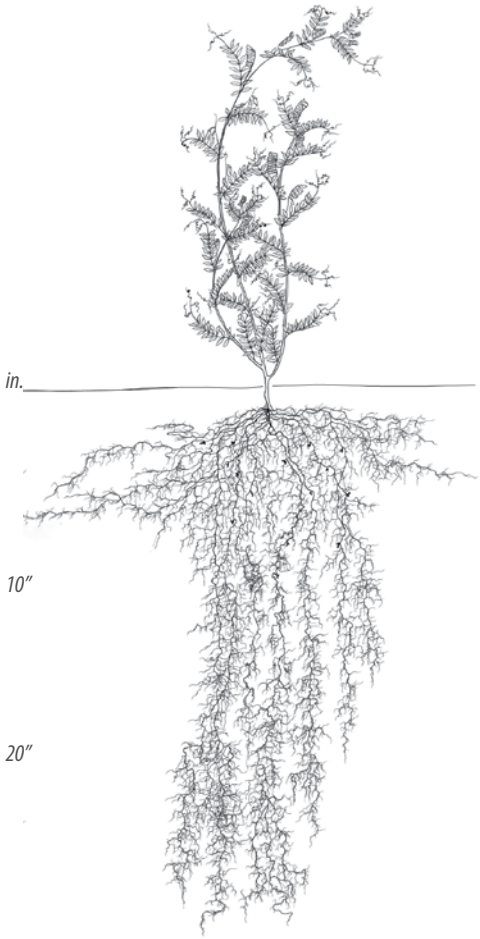
Performance Ratings

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

Additional Considerations

- » Performs well with competition and shading in a mixed stand or interseeding.
- » Poor host for soybean cyst nematode. Alternate host for root lesion and root-knot nematodes.
- » To produce measurable nitrogen for a cash crop, allow hairy vetch to grow until at least mid-May.
- » Terminating after mid-May can make it difficult to kill and plant into hairy vetch due to long stems and tendrils.
- » Vetch can be difficult to terminate with glyphosate.
- » Termination is easier when followed with corn and soybean because of broader herbicide options.

Hairy Vetch 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.