USDA U.S. DEPARTMENT OF AGRICULTURE

WINTER PEA

COVER CROP FACT SHEET FOR IOWA

Winter Pea Seed

Winter Pea *(Pisum sativum)*, also called field pea or Austrian winter pea, is a quick growing cool-season annual legume best used in cover crop mixes as a nitrogen source and soil builder.

Identifying Features

- Two basal leaflet-like stipules
- Stems are weak, angular, and waxy
- Several pairs of tendrils
- Some varieties are leafless or semi-leafless

Cultural Traits

- Winter annual legume
- Minimum germination soil temperature: 41º F
- Cold temperature tolerance: -10º F
- Seeding date: Early April to Mid May* (S)***
- Seeding date: Early August to Late August* (F)***

Planting Information

- **Drill** at 1 - 1½ inch (45 lbs./acre PLS**)
- **Broadcast** (45 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*
****F=Fall S=Spring*

Additional planting information:

- ~2,000 seeds/lb.
- Limit to 30 percent of total cover crop mix and using with grasses for livestock feed.
- Requires more moisture to germinate well with broadcast seeding.
- Broadcasting without incorporation is usually less dependable than drilling.

Sprouting winter pea

Field peas popping through.

Field peas growing in a field.

C:N (Carbon:Nitrogen) Ratio

- Winter Pea 13:1 to 83:1

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Winter pea leaves. *(Cathy DeWitt)*

Winter pea leaves. *(NC State University Extension)*

Performance

Dry matter = 500 - 3,000 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

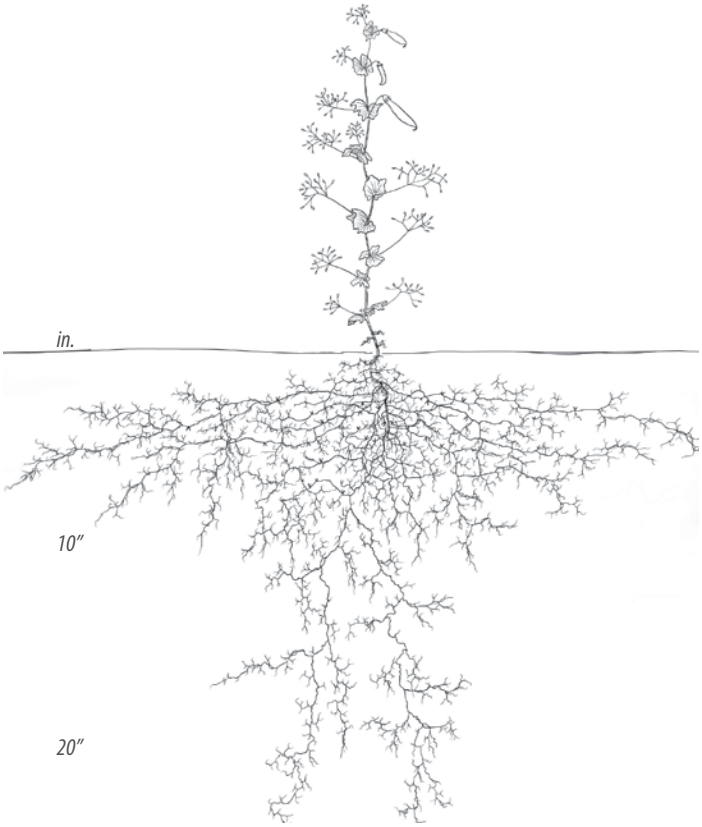
Performance Ratings

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

Additional Considerations

- Mixes well with grains when grown for forage.
- Perform best in well and moderately well-drained soils.
- Some pea varieties are bitter and less palatable to livestock.
- Peas are poor hosts for soybean cyst nematode.

Winter Pea 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.