

BALANSA CLOVER

COVER CROP FACT SHEET FOR IOWA

Balansa Clover (*Trifolium michelianum*) is a cool-season/winter annual legume that provides an excellent nitrogen source to the soil. Balansa clover is excellent in a cover crop mix for livestock grazing.



Identifying Features

- » Large, pointed trifoliate leaves
- » Leaves can be smooth or serrated
- » Stems are hollow

Cultural Traits

- » Cool-season/winter annual legume
- » Minimum germination soil temperature: 40° F
- » Cold temperature tolerance: 5° F
- » Seeding date: Early August to Early September* (F)***
- » Seeding date: Early April to Mid May* (S)***

Planting Information*

- » **Drill** at ¼ - ½ inch (4 lbs./acre PLS**)
- » **Broadcast** (6 lbs./acre PLS)
- » **Aerial** (6 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:

- » ~500,000 seeds/lb.
- » Increase seeding rate if using for forage/grazing.
- » Planting in a mixture can enhance performance as a cover crop.
- » Time interseeding to match cash crop growth and maturity to balance clover establishment and cash crop competition.
- » If growing for nitrogen production, consider using inoculation.



*Balansa Clover Seed
(Shown with seed treatment)*



Balansa clover before blooming



Balansa clover leaves



Balansa clover field

C:N (Carbon:Nitrogen) Ratio

- » Balansa Clover 15:1 - 20:1

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Viper Balansa Clover. (Smith Seed Services)



Young balansa clover plant. (Smith Seed Services)

Performance

Dry matter = 250 - 3,000 lbs./acre per year
(Biomass quantity is dependent on planting and termination dates and precipitation.)

Performance Ratings

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

Additional Considerations

- » Balansa clover thrives in poorly drained soils and even periodic standing water.
- » Tolerance to cold temperatures allows for extended grazing opportunities in late fall.
- » Balansa produces more biomass than other clovers, contributing more organic matter to the soil.

Balanasa Clover Leaves



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.