VETCH, HAIRY (Vicia villosa)

Hairy vetch is used as a cover crop in the Piedmont, Mountains, and Ridge & Valley. Vetches generally produce more biomass and N than crimson clover. Vetches are often used in combination with a cereal crop to provide a source of nitrogen with the high biomass produced by the grain. However, vetches can become weed since these are hard-seeded. Woolypod vetch is a subspecies of hairy vetch so is included in this formation sheet. Uncoated (raw) vetches work well and contain ~50% more seed per pound than coated versions.

Recommended Varieties

Variety	Reasons Why	Source
Purple Bounty	Earlier variety and provides good biomass.	Managing Cover Crops Profitably
Lana Woolypod Vetch	Earlier than other hairy vetches and similar to Dixie	Jimmy Carter Plant Materials
	crimson clover in maturity.	Center data
AU Merit	Typically 15 days earlier than other vetches and	Noble Research Institute
	produces high biomass.	

Planting Information

Information		Comments	Source
Drilled Seed	½ - 1½		Managing Cover Crops Profitably
Depth (inches)			
Drilled Seeding	5 - 10	Use Rhizobium leguminosarum biovar viciae	Mirsky et al. 2017
Rate (lbs/acre)		inoculant.	
Broadcast	15 - 20		
Seeding Rate			
(lbs/acre)			

Termination Information

Information	Source
Vetches can put on significant biomass late in the season prior to termination.	Hairy Vetch as a Crop Cover,
Most vegetable farmers use mowing and incorporation for termination. Flail	Managing Cover Crops
mowers provide the finest residue and most even distribution, but rotary mowers	Profitably, USDA Hairy Vetch
can be used. Vetch tends to vine out and when present at high levels can cause	Plant Guide
issues with wrapping around mowers during termination if the cover crop is too	
robust. This may make it difficult for small -scale farmers to manage. Residue	
should be incorporated as soon after mowing as possible. Leave at least 2 weeks	
for residue to decompose before planting. Legumes decompose quickly and most	
of the nitrogen is released within 1 month after incorporation. Decomposition is	
greater in moist, warm conditions. If the soil is dry then irrigation may be	
necessary. Cool soils conditions will lengthen time needed before planting.	
If using herbicides for termination, consult your local Extension and state Pest	
Management Handbook for herbicide recommendations. Always follow the	
herbicide label.	

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Cultural Traits

Traits		Comments	Source
Typical Dry Matter Range (lbs/acre)	3,500 - 5,000		Managing Cover Crops Profitably, Unpublished Literature Review in Piedmont - Gaskin
Typical Total N Range (lbs/acre)	125 - 175		Managing Cover Crops Profitably, Unpublished Literature Review in Piedmont - Gaskin
Life Cycle	Cool season annual legume		
Growth Habit	Viney, Prostrate or Climbing		Managing Cover Crops Profitably
Preferred Soil pH	6.0 - 7.0		Managing Cover Crops Profitably
Relative Seed Cost (\$/acre)	\$\$\$		Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	60°		Managing Cover Crops Profitably
Cautions		Up to 25% hard seed. Susceptible to <i>Sclerotinia</i> . Not a good choice for fields with a history of problems with <i>Sclerotinia</i> or for use before susceptible spring crop such as lettuce or crucifers.	Hairy Vetch as a Cover Crop; Clemson University; University of Georgia

Sources:

Hairy Vetch as a Cover Crop: https://extension.psu.edu/hairy-vetch-as-a-crop-cover

Managing Cover Crops Profitably: https://www.sare.org/Learning-Center/Books

Mirsky, S.B., V.J. Ackroyd, S. Cordeau, W.S. Curran, M. Hashemi, S.C. Reberg-Horton, M.R. Ryan, and J.T. Spargo. 2017. Hairy Vetch Biomass across Eastern United States: Effects of Latitude, Seeding Rate and Date and Termination Timing. Agron. J. 109:1510-1519.

USDA Hairy Vetch Plant Guide: https://plants.usda.gov/factsheet/pdf/fs-vivi.pdf