

Winter peas are often used in cover crop mixes. Pea may be faster growing in the fall than clover or vetch; consequently, may provide better winter ground coverage. The winter pea varieties available currently are susceptible to Sclerotinia (white mold), a disease intensified under cool, wet conditions often encountered in the Southeast. Use caution planting pea as a cover crop directly before other legume cash crops, especially peanuts, because pea could potentially intensify disease or insect problems in the following legume cash crop. Disease may be reduced when pea is mixed with small grains to help keep the vines off the soil where they are more susceptible to diseases intensified by wet conditions. Winter peas are sensitive to soil salinity and extreme acidity. In the Southeast, peas may exhibit cold injury after freeze events in the form of foliar necrosis. This injury is often transient, and many varieties are capable of recovering from cold injury in this region.

Recommended Varieties

Variety	Reasons Why	Source
CAH-11, Chelan, Common, Fenn, Granger, Melrose, Romack, Specter	Produced 3000-6750 lbs dry biomass /acre in NC variety trials.	R.A. Vann et al. - Unpublished
Frostmaster, Survivor, Whistler, and Windham	Cultivars with smaller leaf sizes and are typically more winter hardy.	MS Plant Materials Center data

Planting Information

Information	Comments	Source
Drilled Seed Depth (inches)	1 - 3	Breeders indicate better anchoring, cold tolerance, and growth if planted 2 – 3 inches.
Drilled Seeding Rate (lbs/acre)	50 – 70 in monoculture, 30 – 40 in mixture	Use the inoculant <i>Rhizobium leguminosarum biovar viceae</i> . Pea generally performs best when drilled on narrow row spacing (<10 inch).
Broadcast Seeding Rate (lbs/acre)	45 – 60 Not usually recommended	Pea seed can be broadcast if good moisture is present following broadcasting; biomass production will likely be less than that for drilled pea.
Aerial Seeding Rate (lbs/acre)		Not recommended.

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Termination Information

Information	Source
<p>Winter peas can be terminated with herbicides, mowing or disking at full-bloom stage to optimize nitrogen. Herbicides are most effective prior to blooming. Use of roller/crimper is not recommended unless plants are at least 14 inches in height.</p> <p>Consult your local Extension and state Pest Management Handbook for herbicide recommendations. Always follow the herbicide label.</p>	<p>Managing Cover Crop Profitably, USDA Fact Sheet: Terminating Cover Crops with a Roller Crimper</p>

Cultural Traits

Traits	Comments	Source
<p>Typical Dry Matter Range (lbs/acre)</p> <p>1,500 - 4,500</p>	<p>Pea variety and growth habit have a large influence on biomass production.</p>	<p>Managing Cover Crops Profitably, Unpublished Literature Review in Coastal Plain – Gaskin, Atwell 2017</p>
<p>Typical Total N Range (lbs/acre)</p> <p>70 - 120</p>		<p>Unpublished Literature Review in Coastal Plain, Atwell 2017</p>
<p>Life Cycle</p> <p>Cool season annual legume</p>		
<p>Growth Habit</p> <p>Viney, Prostrate to Climbing</p>		
<p>Preferred Soil pH</p> <p>6.0 - 7.0</p>		<p>Managing Cover Crops Profitably</p>
<p>Relative Seed Cost (\$/acre)</p> <p>\$\$\$\$</p>		<p>Based on survey of seed costs using maximum price and max seeding rate</p>
<p>Min. Germination Temp (F)</p> <p>41°</p>		<p>Managing Cover Crops Profitably</p>
<p>Cautions</p>	<p>Susceptible to Sclerotinia (white mold); not recommended before peanut production to minimize white mold infection. New varieties are being developed with resistance. Winter peas also attract wildlife, particularly deer.</p>	<p>USDA Pea Plant Guide</p>

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Sources:

Atwell, R.A. (2017). Optimizing short-term cover crop benefits through genotype screening and management. Ph.D. diss., North Carolina State University, Raleigh, NC.

MS Plant Materials Center data:

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/plantmaterials/pmc/southeast/mspmc/>

NRCS GA Cover Crop Standard:

[https://efotg.sc.egov.usda.gov/references/public/GA/Cover_Crop_\(340\)_Standard_October_2015.pdf](https://efotg.sc.egov.usda.gov/references/public/GA/Cover_Crop_(340)_Standard_October_2015.pdf)

USDA Fact Sheet: Terminating Cove Crops with a Roller Crimper. 2015:

https://efotg.sc.egov.usda.gov/references/public/MS/Terminating_Cover_Crops_with_a_Roller_Crimper.pdf

USDA Pea Plant Guide: https://plants.sc.egov.usda.gov/plantguide/pdf/pg_pisa6.pdf

Wright, D.L., E.B. Whitty, and A.R. Blount. 2013. Planting dates, rates and methods of agronomic crops. UFL #SS-AGR-150.