

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 beans, because pea could potentially intensify disease or insect problems in the following legume cash crop. Winter peas are often mixed with small grains in order to enhance biomass production and mixing the two may reduce disease as the grains help keep the vines off the soil where they are more susceptible to disease. Peas are large seeded and can sometimes settle differently in a drill or broadcast seeder than the accompanying small grain seed, resulting in uneven distribution of cover crops in a field if the grower is not careful when seeding. It is a nematode host and should not be planted in fields with nematode problems. 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, but winter peas may winterkill in the Mountains.

### Recommended Varieties

Variety	Reasons Why	Source
CAH-11, Chelan, Common, Fenn, Granger, Melrose, Romack, Specter	Produced 3,000-6,750 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 - Unpublished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.	Managing Cover Crops Profitably
Drilled Seeding Rate (lbs/acre)	40 – 60 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).	GA Cover Crop Standard, NCSU variety trials
Broadcast Seeding Rate (lbs/acre)	45 – 70 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.	Wright et al. 2013, R.A. Vann and S.C. Reberg-Horton

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**Termination Information**

Information	Source
<p>Most vegetable farmers use mowing and incorporation for termination. Flail mowers provide the finest residue and most even distribution, but rotary mowers can be used. Small scale farmers can use weed-eaters on smaller beds. 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.</p> <p>If using herbicides for termination, consult your local Extension and state Pest Management Handbook for herbicide recommendations. Always follow the herbicide label.</p>	Managing Cover Crop Profitably,

**Cultural Traits**

Traits	Comments	Source
Typical Dry Matter Range (lbs/acre)	3,000 - 4,500 Pea variety and growth habit have a large influence on biomass production.	Managing Cover Crops Profitably, Unpublished Literature Review in Piedmont – Gaskin, Atwell 2017
Typical Total N Range (lbs/acre)	70 - 120	Unpublished Literature Review in Piedmont, Atwell 2017
Life Cycle	Cool season annual legume	
Growth Habit	Viney, Prostrate to Climbing	
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)	41°	Managing Cover Crops Profitably
Cautions	Susceptible to <i>Sclerotinia</i> . Is not a good choice for fields with a history of problems with <i>Sclerotinia</i> or for use before a susceptible spring crop such as lettuce or crucifers. New varieties are being developed with resistance.	USDA Pea Plant Guide; Clemson University

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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/mspm/>

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 Pea Plant Guide: [https://plants.sc.egov.usda.gov/plantguide/pdf/pg\\_pisa6.pdf](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.