

Soybeans can work well as a summer legume cover crop and may be easier to manage for small-scale farmers. Forage varieties usually produce more biomass. These may not be a good choice if edamame is grown as a cash crop. The same pathogens and pests that affect cash crops affect cover crops (e.g., nematodes, cutworms, stinkbugs, etc.). While the majority of soybeans grown as a cash crop are genetically modified organisms (GMO), containing genes for herbicide resistance, some non-GMO varieties can also be found.

Recommended Varieties

Variety	Reasons Why	Source
Large Lad	Forage variety with high biomass, bush-type, disease resistance, and roundup ready (GMO). Seed is more expensive because of roundup resistance technology.	Jimmy Carter Plant Materials Center data
Laredo	Forage variety with good biomass, more viney growth, seed is generally available and cheaper.	Jimmy Carter Plant Materials Center data
Tyrone	Forage variety, used in wildlife food plots, less expensive than other forage soybeans.	

Planting Information

Information	Comments	Source
Drilled Seed Depth (inches)	1 - ½	Midwest Cover Crops Council Selector Tool
Drilled Seeding Rate (lbs/acre)	40 - 60	Use <i>Bradyrhizobium japonicum</i> inoculant. Midwest Cover Crops Council Selector Tool
Broadcast Seeding Rate (lbs/acre)	50 - 75	Not a preferred method unless timely moisture is available for stand establishment. Midwest Cover Crops Council Selector Tool

Termination Information

Information	Source
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.	

Continue to next page...

Cultural Traits

Traits	Comments	Source
Typical Dry Matter Range (lbs/acre)	4,000 - 10,000	Jimmy Carter Plant Materials Center data
Typical Total N Range (lbs/acre)	50 - 150	Jimmy Carter Plant Materials Center data
Life Cycle	Summer annual legume	
Growth Habit	Upright to viney	
Preferred Soil pH	5.8 - 7.0	
Relative Seed Cost (\$/acre)	\$\$\$\$	Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	50°	Midwest Cover Crops Council Selector Tool
Cautions	Consider using in a mix with annual summer grass due to low C:N ratio. Potential for disease issues such as <i>Cylindrocladium</i> Black Rot - CBR, and nematodes. Some nematode resistant soybean cultivars are available. Consult your local Extension, NRCS, and state Pest Management Handbook	Clemson University; University of Georgia

Sources:

Jimmy Carter Plant Materials Center Annual Reports:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ga/plantsanimals/?cid=nrcs144p2_022076

Midwest Cover Crop Selector Tool - Missouri data: <http://mccc.msu.edu/covercroptool/covercroptool.php>