

White lupin can be used as a cover crop though seeds may not be easily available. White lupin is more cold tolerant than blue lupin. Some varieties have alkaloids that are toxic to livestock. “Sweet” (low alkaloid) cultivars should be used in mixed row crop/livestock operations where the cover crop might be grazed.

**Recommended Varieties**

Variety	Reasons Why	Source
TIFWHITE-78	A low alkaloid “sweet” lupin. Can be used in mixed row crop/livestock operations. Can be attractive to wildlife.	Managing Cover Crops Profitably
AU Homer	A high alkaloid “bitter” lupin. Not as attractive to wildlife, and more resistant to disease insects, and nematodes.	Managing Cover Crops Profitably

**Planting Information**

Information	Comments	Source
Drilled Seed Depth (inches)	1 - 2	Managing Cover Crops Profitably, USDA White Lupin Plant Guide
Drilled Seeding Rate (lbs/acre)	90 - 120 Higher rate for large seeded white varieties. Use <i>Rhizobium lupini</i> inoculant.	Managing Cover Crops Profitably, USDA White Lupin Plant Guide
Broadcast Seeding Rate (lbs/acre)	110 - 160	USDA White Lupin Plant Guide
Aerial Seeding Rate (lbs/acre)	N/A	

**Termination Information**

Information	Source
White lupin can be terminated with herbicides, rolling & crimping, mowing, or tillage. The hollow stems crush or break readily, making it easy to plant cash crops using conservation tillage equipment.  Consult your local Extension and state Pest Management Handbook for herbicide recommendations. Always follow the herbicide label.	Managing Cover Crops Profitably

Continue to next page...

**Cultural Traits**

Traits		Comments	Source
Typical Dry Matter Range (lbs/acre)	4,900 - 7,000	There is little information available on white lupin biomass in the South.	Grow Your Own N: Legumes in Row Crop Systems 2006, Sulas et al. 2015
Typical Total N Range (lbs/acre)	100 - 150		USDA White Lupin Plant Guide
Life Cycle	Cool season annual legume		USDA White Lupin Plant Guide
Growth Habit	Upright		
Preferred Soil pH	5.6 - 7.5		USDA White Lupin Plant Guide
Relative Seed Cost (\$/acre)	\$\$\$\$		Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	N/A		
Cautions	Lupins should be rotated with small grains due to susceptibility to viral and fungal diseases. Due to susceptibility to Sclerotinia and Sclerotium rolfsii ( <i>Athelia rolfsii</i> ), do not plant before any legumes or hemp unless fumigating before planting cash crop.		Managing Cover Crops Profitably; Clemson

**Sources:**

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

Mitchell, C.C. and J. Mosjidis. 2006. Grow Your Own N: Legumes in Row Crop Systems. Agronomy Series Timely Information Alabama Cooperative Extension S-05-06

Sulas, L., S. Canu, L. Ledda, A.M. Carroni, M. Salis. 2015. Yield and nitrogen fixation potential from white lupine grown in rainfed Mediterranean environments. Scientia Agricola: <http://dx.doi.org/10.1590/0103-9016-2015-0299>

USDA White Lupin Plant Guide: [https://plants.usda.gov/plantguide/pdf/pg\\_lual22.pdf](https://plants.usda.gov/plantguide/pdf/pg_lual22.pdf)