CLOVER, CRIMSON (*Trifolium incarnatum*)

Crimson clover is probably the most commonly used cool season legume cover crop. It does not produce as much biomass or nitrogen as vetch but is less prone to reseed. It is one of the largest seeded clovers and tends to be one of the earliest flowering of winter legumes. Choosing an early-maturing variety that blooms before termination maximizes the amount of N fixation. Conversely, allowing crimson clover to produce seed lowers nutrient quality and availability for the cash crop and termination should occur when approximately 50% of plants are blooming. Use with caution if there is high nematode pressure in your field.

Recommended Varieties

Variety	Reasons Why	Source
AU Robin	More suitable for corn. Good biomass, early maturing- flowers about 2 weeks before Dixie. Seed is generally more expensive than Dixie. Moderate host to root-knot nematodes. In some years seed may be difficult to find.	
AU Sunrise	More suitable for corn. Good biomass, early maturing- flowers about 1 to 2 weeks before AU Robin and about 3 to 4 weeks earlier than Dixie. Seed is generally more expensive than Dixie. In some years seed may be difficult to find.	
AU Sunup	Earliest flowering crimson clover.	
Dixie	More suitable for cotton. Good biomass. Seed is available and affordable. The standard crimson clover variety when variety is not specified. Good host to root-knot nematodes.	

Planting Information

Information		Comments	Source
Drilled Seed Depth (inches)	¼ - ½		Managing Cover Crops Profitably
Drilled Seeding Rate (lbs/acre)	8-15	Use *Rhizobium leguminosarum biovar trifolii* inoculant	Managing Cover Crops Profitably
Broadcast Seeding Rate (lbs/acre)	15- 20	Into cotton – can use highboy sprayer to spread seed before defoliating. Into soybeans – broadcast before leaf drop. In corn – after harvest.	Managing Cover Crops Profitably
Aerial Seeding Rate (lbs/acre)	N/A	There is not much information on aerial seeding of clover. Timing should be similar to broadcast.	

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Termination Information

Information	Source
Crimson clover can be terminated by herbicides, mowing or tillage. Herbicides - legumes take longer to kill with herbicides than grains. Plan on 2 ½ to 3 weeks for clover to fully die. Mowing - Clover decomposes quickly and mowing will accelerate decomposition and may increase nitrogen loss before crops are able to use it. Rolling/crimping kill at bloom – It is difficult to kill clover with rolling/crimping alone. Several passes may be needed as clover may not reach the minimum 14 inches in height needed for effective crimping. Clover may be terminated by mowing after early bud stage. Consult your local Extension and state Pest Management Handbook for herbicide recommendations. Always follow the herbicide label.	Balkcom - personal communication, Managing Cover Crops Profitably

Cultural Traits

Traits	Comments		Source
Typical Dry Matter Range (lbs/acre)	2,500 - 5,000		Managing Cover Crops Profitably, Unpublished Literature Review in Piedmont – Gaskin
Typical Total N Range (lbs/acre)	50 - 125		Managing Cover Crops Profitably, Unpublished Literature Review in Piedmont – Gaskin
Life Cycle	Cool season annual legume		Managing Cover Crops Profitably
Growth Habit	Semi-upright		Managing Cover Crops Profitably
Preferred Soil pH	6.0 – 7.0	Tolerant of a wide variety of soil types	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)	N/A		
Cautions	Cotton – to ensure best stand wait at least 10 days after clover termination. Use with caution if there is high nematode pressure in your field. 'Dixie' is a good host for root knot nematode. 'AU Sunrise' is a moderate host for root knot nematode. Cover crop should be killed by mid-March to prevent stink bug population build up. Risk of susceptibility to Sclerotinia and Sclerotium rolfsii (*Athelia rolfsii*). Do not plant before legume cash crops or hemp unless fumigating before planting cash crop.		Bastola and Davis 2017, Culpepper – personal communication, Timper et al. 2006; Clemson University

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Sources:

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

Timper, P., R.F. Davis, and P.G. Tillman. 2006. Reproduction of *Meloidogyne incognita* on winter cover crops used in cotton production. J. Nematology 38(1):83-89.