

Extension university of wisconsin-madison dunn county

Ag101: Cover Crops

Cover crops provide protection to the soil between the regular crop interval of when one row crop is harvested and another is planted. Their benefits are many, depending on what cover crop is planted.

Possible benefits of cover crops include:

- Provide organic source of nitrogen for crop growth
- Weed control or suppression
- Add organic matter to soil
- Reduce wind and water erosion
- Conserve soil moisture as a mulch
- Minimize loss of nutrients by leaching
- Increase soil microbial activity

The first question that farmers need to answer when selecting a cover crop is: what is the reason for planting cover crops on this field?

- **Grass species** (ex. barley, rye) have prolific root systems and can be used to control erosion, build soil organic matter, and suppress weed growth.
- **Brassicas** (ex. radish, canola, turnips) have great fall growth that can reduce late season erosion and provide forage in grazing operations. Brassicas also diversify the soil microbial community and increase pore space for water infiltration.
- **Legumes** (ex. clover, alfalfa, peas) provide an organic source of nitrogen that can reduce the need to purchase nitrogen from commercial fertilizers.

Unter Taxo Spervers of Aprilator		Cover Crop Chart							
		GROWTH CYCLE PLANT ARCHIT A = Annual Ŷ = Upright B = Biennial # = Upright P = Perennial 3 = Prostrat			-Spreading = Medium				
			COOL						
GRASS				BROA	DIEAE		WA	ARM	GRASS
BARLEY ↑			_	BROA				A AMARANTH Υ	A FOXTAIL MILLET
<u>οατ</u> Υ	CANOLA	A/B CAMELINA Υ			LEGUME			A <u>BUCKWHEAT</u> Υ	A PEARL MILLET
WHEAT Y	A/P MUSTARD	A <u>PHACELIA</u> γ	A FIELD PEA	ERSEEM CLOVER	A/B <u>VETCH</u>	A S <u>COWPEA</u> *	Δ <u>CLUSTER</u> <u>BEAN</u> Υ	α <u>QUINOA</u> Υ	A PROSO MILLET
<u>CEREAL</u> <u>RYE</u> Υ	A RADISH	 A FLAX Φ Υ 	A Or LENTIL	A <u>CRIMSON</u> <u>CLOVER</u> γ	BIRDSFOOT TREFOIL	a/p FENUGREEK ♈	۵ کړ <u>SUNNHEMP</u> ۲	P CHICORY *	A <u>GRAIN</u> SORGHUI
<u>TRITICALE</u> Υ	B <u>TURNIP</u>	▲ A ▲ <u>KALE</u> ★ *	<u>LUPIN</u> Υ	RED CLOVER Υ		P <u>PIGEONPEA</u> *	A Ó MUNG BEAN	A CUCURBITA	A <u>SUDAN</u> <u>GRASS</u>
ANNUAL FESCUE		A SPINACH	A/P	P <u>WHITE</u> <u>CLOVER</u> # Y	P <u>SAINFOIN</u> Υ	A O CHICKPEA	A SOYBEAN	A <u>SAFFLOWER</u> Υ	A <u>TEFF</u>
SALINE TOLERANT	A/B CARROT	A/B CHARD	P ROUNDHEAD LESPEDEZA	P <u>KURA</u> <u>CLOVER</u>	P ALFALFA	A FAVA BEAN	A/P • • PEANUT	A SUNFLOWER	A CORN

This chart lists different varieties of cover crops based on various attributes.

More information can be found at:

http://mccc.msu.edu/ covercroptool/covercroptool.php Once a farmer has chosen a cover crop to plant, they need to decide what is the best method for establishment. Methods include:

- Drilling is a technique that directly plants cover crop seed in rows that are usually five to seven inches apart. Drilling results in more consistent stands, but planting can not occur after the row crop has established.
- Broadcasting spreads the seed on top of the soil without physical incorporation. Broadcasting can be done using helicopters, airplanes, airflow planters and various other methods at all times of the growing season.
- Interseeding cover crops is a method that plants cover crops between actively growing row crops. This method is gaining traction in Wisconsin where cover crops have less time to establish, such as after corn harvested for grain. The key to interseeding is planting at the right time. If planted too early, the cover crop can be competitive with the row crop and reduce yields. If interseeded too late, then the row crop will canopy and limit sunlight to the emerging cover crop. This usually results in little or no growth of the cover crop.

The Red Cedar Demonstration Farm (RCDF) has demonstrated interseeded cover crops with some success. In the photos below, a clover mix was interseeded two different times: mid June and late August.





Mid June interseeded cover crops

August interseeded Cover crops

Source: Schulte and Walsh. *Management of Wisconsin Soils. Extension publication A3588, P45 to 47* For more information please visit Extension Dunn County website at https://dunn.extension.wisc.edu/ or https://fyi.extension.wisc.edu/covercrop/

The University of Wisconsin-Madison Division of Extension provides affirmative action and equal opportunity in education, programming and employment for all qualified persons regardless of race, color, gender, creed, disability, religion, national origin, ancestry, age, sexual orientation, pregnancy, marital or parental, arrest or conviction record or veteran status.