

# Interseeding Into Corn

Considerations for interseeding cover crops into corn at V4-V6



## Background

Interseeding is a technique to incorporate cover crops into a cropping system during the growing period. The cover crops are seeded in-between the corn rows (trials have been experimented with 30", 38", and even 60" wide corn rows) at V4 to V6 (figure 2) of the corn stage, no later than V7.

During the V4 to V6 stage, there is enough light in-between the rows that the cover crop species can germinate before corn canopies, and late enough into the growing season that the species do not compete with the corn seedlings. The cover crops can be seeded a variety of ways, including broadcasted or drilled, but trials have shown drilling the cover crop resulted in a more successful stand due to seed to soil contact.

### Herbicide program is a big factor to consider.

Herbicide selection and residue will need to be taken into account to avoid killing the cover crop species seeded, while still suppressing the weeds in the springtime. If trying interseeding for the first time, farmers have suggested not starting with a field with weed issues, until getting comfortable and experimenting with the practice.

Interseeding a cover crop into corn during the growing season allows a cover crop to be established and ready to flourish after harvest (also adds the option for grazing earlier in the fall), versus seeding a cover crop after harvest and having a shorter window for establishment before winter. In either scenario, cover crops add plant diversity to the operation, reduce erosion, scavenge nutrients, and help improve soil health overall.



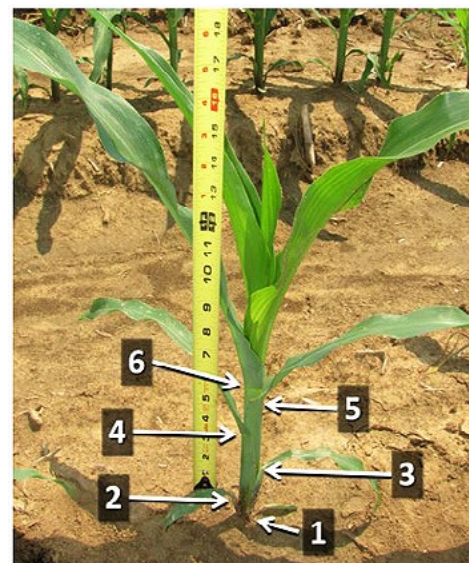
## Things to Consider

- » If using a cover crop mix, plant a variety of seed sizes, and consider planter or drill capabilities.
- » Herbicide program: Consider herbicide selection and residual products if considering interseeding.
  - <https://extension.psu.edu/cover-crop-interseeder-improving-the-success-in-corn>
- » Corn hybrid selection is important. Hybrids with upright leaf structures tend to allow more sunlight to cover crops between the rows.
- » Depending on heat and moisture, corn can rapidly move between stages.
- » Crop insurance in relation to interseeding:
  - RMA defines interseeding as “planting one or more cover crop species into an existing or established crop. Seeding a cover crop into an existing crop at a time that will not impact the yield or harvest of the insured crop.”

- “Overseeding/interseeding a conservation cover crop into an already insured grain crop does not affect its insurability. Insurance attaches at the time of planting the insured crop and overseeding/interseeding occurs after the insured crop is planted, so the crop is insurable.”
- Always remember to check with your insurance agent to make sure they are aware and on board.



**V3 Growth Stage.** Three leaves have fully emerged and have visible leaf collars. The first leaf is about 1.75 inches long and rounded on the tip. Each successive leaf is pointed and longer. V3 corn is usually about 5 to 7 inches tall. (Larson, 2021)



**V6 Growth Stage.** The growing point finally moves above the soil surface and rapid growth begins. V6 corn is normally 14 to 20 inches tall. (Larson, 2021)

## Interseeding Mixes in Corn at V4-V6

Mix Type (Goals)	Species Common Name		Multispecies Seeding Rate	
			Drilled/Broadcast Incorporated (lbs./ac.)	Broadcast Not Incorporated (lbs./ac.)
Beginner Mix	Annual Ryegrass		6	8
	Buckwheat		25	35
Cheap Mix	Annual Ryegrass		10	11
	Red Clover		5	6
Grazing Mix	Annual Ryegrass		6	7
	Turnip		1.5	2
	Red Clover		4	5
Weed Suppressor	Annual Ryegrass		6	7
	Buckwheat		16	25
	Brassica (choose one)	Turnip	1	1
		Radish	1.25	1.5
Kale		1	1	
Attract Beneficial Insects	Annual Ryegrass		3	3.5
	Buckwheat		12	19
	Cowpea		14	19
	Brassica (choose one)	Turnip	1	1
		Radish	1.25	1.5
Kale		1	1	
Nutrient Scavenger	Annual Ryegrass		9	12
	Crimson Clover		3	4
	Rapeseed		0.75	1
	Radish		2.25	3
Nitrogen Fixer	Buckwheat		11.5	12.5
	Cowpea		8	10
	Radish		1.5	1.5
	Sunn Hemp		5	6

## Interseeding Species in Corn at V4-V6

Species Common Name	Planting Depth	Single Species Seeding Rate	
		Drilled/Broadcast Incorporated (lbs./ac.)	Broadcast Not Incorporated (lbs./ac.)
<b>Cool Season Grass</b>			
Annual Ryegrass*	0.25-0.5	12	14
Spring Barley	0.75-2.0	60	60
Oats	1.0-2.0	60	60
<b>Cool Season Legume</b>			
Red Clover*	0.25-0.5	8	10
Crimson Clover*	0.25-0.5	10	11
Common Vetch	0.5-1.0	20	26
Berseem Clover	0.25-0.5	8	9
White Clover	0.25	5	7
Hairy Vetch	0.5-1.5	12	*14
<b>Cool Season Broadleaf</b>			
Turnip*	0.25-0.5	3	4
Radish*	0.25-0.5	5	6
Kale*	0.25-0.5	3	4
Rapeseed*	0.25-1.0	3	4
Flax	0.5-1.0	15	18
Mustard	0.25-0.5	3	4
<b>Warm Season Grass</b>			
Millet	0.5-1.0	10	12
<b>Warm Season Legume</b>			
Cowpea*	0.75-1.0	30	38
Sunn Hemp*	0.5-1.0	15	22
Mung Beans*	1.5-3.0	15	18
<b>Warm Season Broadleaf</b>			
Buckwheat*	0.5	45	50

\*Farmers' preferences north of Interstate 80  
 Preferences not determined south of Interstate 80

## References

Larson, E. (2021, May 1). *How to Determine Corn Vegetative Growth Stages*. Retrieved from Mississippi State University Extension: [www.mississippi-crops.com/2021/05/01/how-to-determine-corn-vegetative-growth-stages/](http://www.mississippi-crops.com/2021/05/01/how-to-determine-corn-vegetative-growth-stages/)

