

Cover Crops

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MATCHING COVER CROPS TO YOUR GOALS



Winter Cereal Rye, Annual Rye

- Tremendous biomass production.
- Can be seeded later in the fall , Germinates as low as 34 F .
- Reduces nitrate leaching.
- Excellent weed suppressor.
- Few diseases affect Rye .
- Quick Growing species .
- Improves soil water holding capacity .
- Shallow Root Mass.
- Requires desiccation .

Spring Barley

- Deep Fibrous Root System.
- Produces more biomass than any other small grain crop.
- Scavenges a significant amount of nitrogen.
- Releases allelopathic chemicals that suppress weed growth.
- Higher Nutritional value than oats or wheat.
- Winter kills.

Crimson Clover / Berseem Clover

- Grows well on poorly drained soils.
- Winter kill annual .
- Vigorous tall annual .
- Tolerant of wet conditions.
- Excellent nitrogen fixer.
- Excellent weed suppressor.
- Winter Kills.

Canola, Rape, Cow Pea, Field Pea

- Flowers attract pollinators.
- Good at scavenging nitrogen from soil .
- Cow Pea provides 50 to 100 pounds of nitrogen.
- Forms arbuscular mycorrhizal associations.
- Field pea residue breaks down and releases nitrogen quickly.
- Mixes well with Oats and Barley .
- Winter Kills .

Forage , Oilseed Radish

- Deep root crop.
- Excellent for compaction control.
- Good for scavenging nitrogen from the soil.
- Flowers attract pollinators.
- Winter kills.

Forage Turnips

- Crude protein Leaf tops 16 percent root 12 percent.
- Forms arbuscular mycorrhizal associations.
- Rated good for scavenging nitrogen from the soil.
- Excellent for grazing.
- Flowers attract pollinators.
- Winter Kills.

Oats

- Provide quick weed suppressing biomass.
- excellent nutrient catch crop.
- Improves productivity of legumes when planted in mixes.
- Naturally occurring compounds in roots and residue can hinder weed growth.
- Winter Kills .

Sorghum , Sudangrass

- Tall fast-growing heat-loving summer annual .
- Suppress some nematodes species.
- Secrete allelopathic compounds that suppress weed growth.
- Aggressive root system that relieves compaction.
- Mowing stalks increases root mass 5 to 8 times compared to unmowed .
- Winter Kills.

Pearl Millet, Japanese Millet

- Fast growing annual grass.
- Tolerates frequent cutting.
- Makes excellent forage or hay.
- Tolerates both droughty and wet soils.
- Excellent feed source.
- Low water use.
- Requires desiccation.

White and Red clover

- Provides 70 to 120 pounds of nitrogen.
- Flowers attract bees.
- Forms arbuscular mycorrhizal associations.
- White clover crude protein 24-30 % .
- Requires desiccation.

Winter and Spring Wheat

- Excellent weed suppressing crop.
- Produces a large amount of biomass.
- Excellent nitrogen scavenger.
- Can increase disease problems in the next crop.
- Requires desiccation.

Sunflower

- Deep rooted.
- Effective in mining mobile nutrients deep in the soil profile.
- Attracts pollinators.
- Forms arbuscular mycorrhizal associations.
- Winter Kill.

Triticale

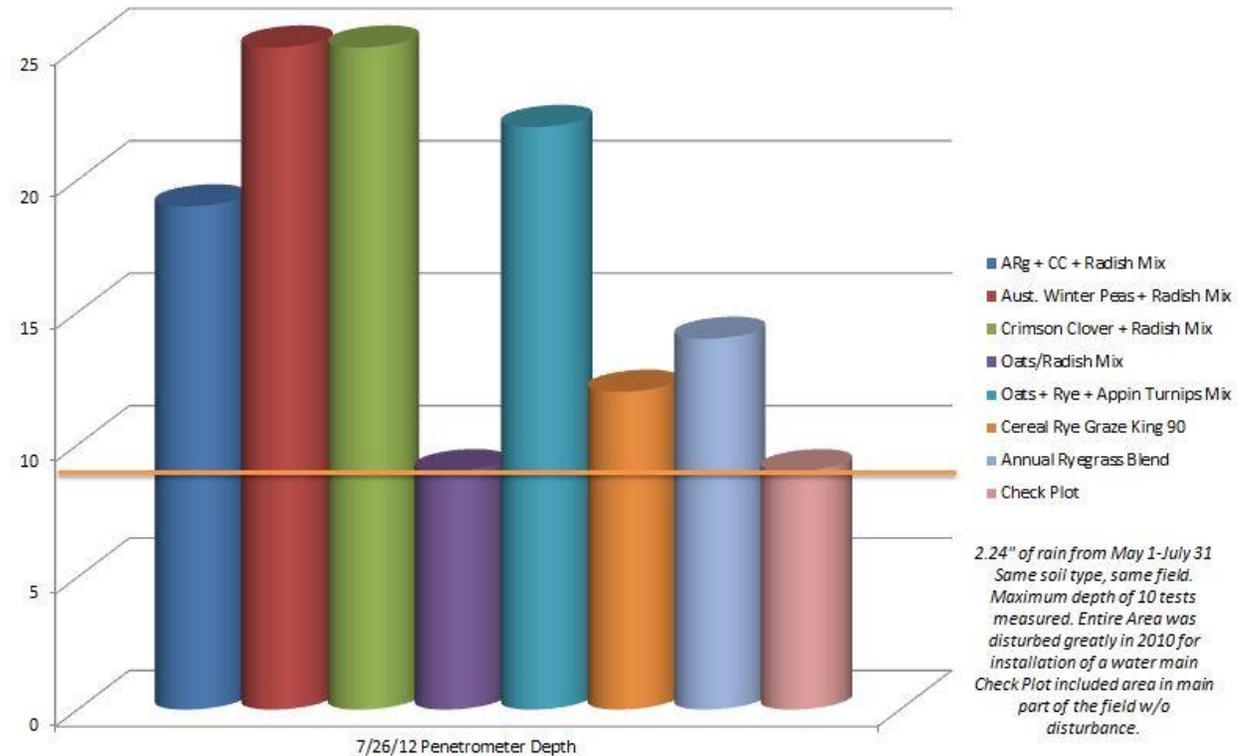
- Crude Protein Hay 9-16 % Grain 17%
- Forms mycorrhizal associations.
- Excellent weed suppressor.
- Very good for grazing.
- Higher seed cost.

Cover Crops Can Reduce Compaction

Measuring Soil Compaction After Different Cover Crops

Robison Farms, Greenwood Indiana

Higher Numbers = Greater Depth in Inches = Less Compaction



The Value of 1% Organic Matter

- Each 1% of Organic Material Contains :
- 10,000 lbs. of C @\$4/ton = \$20/ac
- 1,000 lbs. of N @\$.50/lb. = \$500.00
- 100 lbs. of P@\$.70/lb. = \$70.00
- 100 lbs. of K @\$.40/lb. = \$40.00
- 100 lbs. of S @\$.50/lb. = \$50.00
- Using avg. fertilizer prices that's about \$680.00!
- Every 1 % increase in OM raises soils water holding capacity by as much as 27,000 gallons per acre



Seeding Methods

Drilling vs. Overseeding

Better soil/seed contact	Seeded earlier in the season
Shorter post harvest seeding window	No or limited crop damage (aerial)
Better control of seed placement	More expensive
Less expensive	Limited species selection

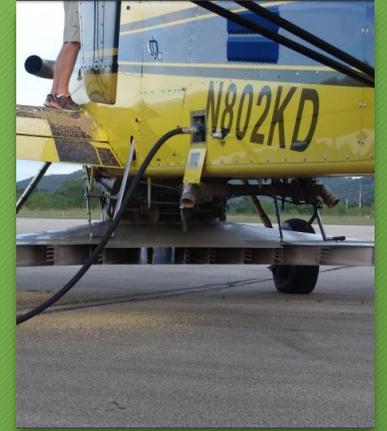
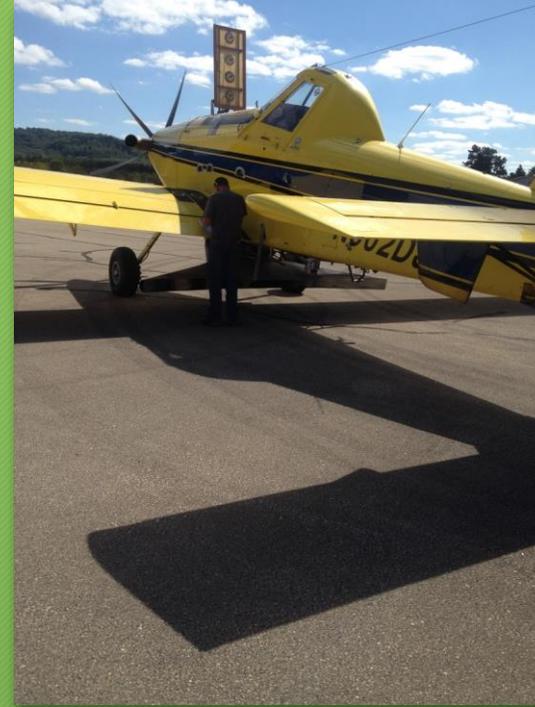






Application Excellence

- Our Planes are equipped with Hydraulic controller Gates insuring a even swath width on every pass.





Field Testing - Getting it Right!

Application Equipment



Guidelines for Aerial Seeding Excellence

- Need at least 50 percent sunlight between corn row
- Soybeans need at least 50 percent yellowing leaves
- Applying Radish's as early as you can for Growth before frost



The Pictures tell the Story



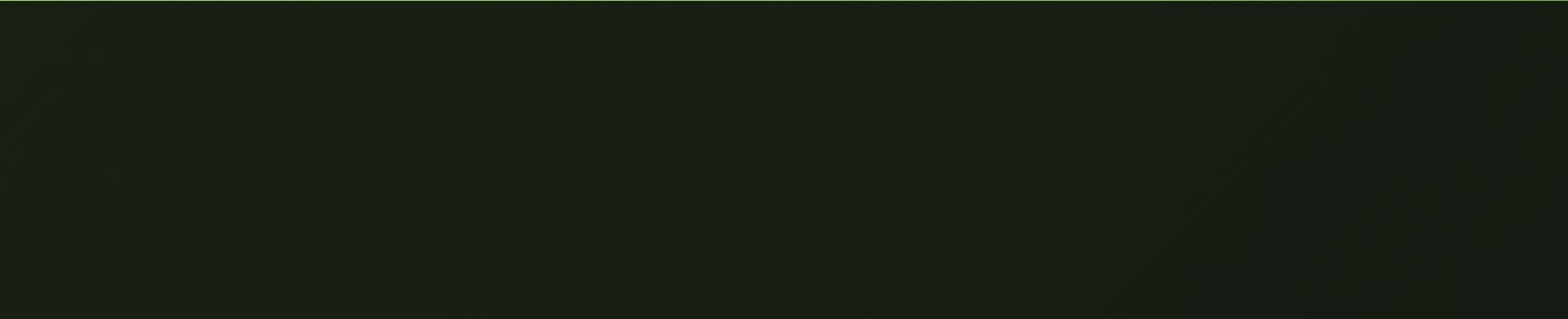




Earthworms and Slugs



High Residue Problems





2018 Cover Crop Mixes

Crawford Cover Crop Mixes - 2018			
Species	Seeding Rate (lbs. PLS/acre)		
	#1	#2	
Winter Cereal Rye	84 lbs.		
Spring Barley		48 lbs.	
Oats	16 lbs.	32 lbs.	
Rape		3 lbs.	
Total lbs/acre	100 lbs./acre	83 lbs./acre	
seeds/sq. ft.	51	44	
Suitable following:	corn silage soybeans	corn silage soybeans	
Estimated Seeding Date:	8/15 - 8/25	8/15 - 8/25	

Growing More Bushels

You may have this problem if you use Ag-Tech Air's Fungicide Program in 2018, Ag-Tech Air helped Growers' produce over 6,000,000 additional bushels.



Did you get yours?

BOOK YOUR AERIAL ACRES TODAY!

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