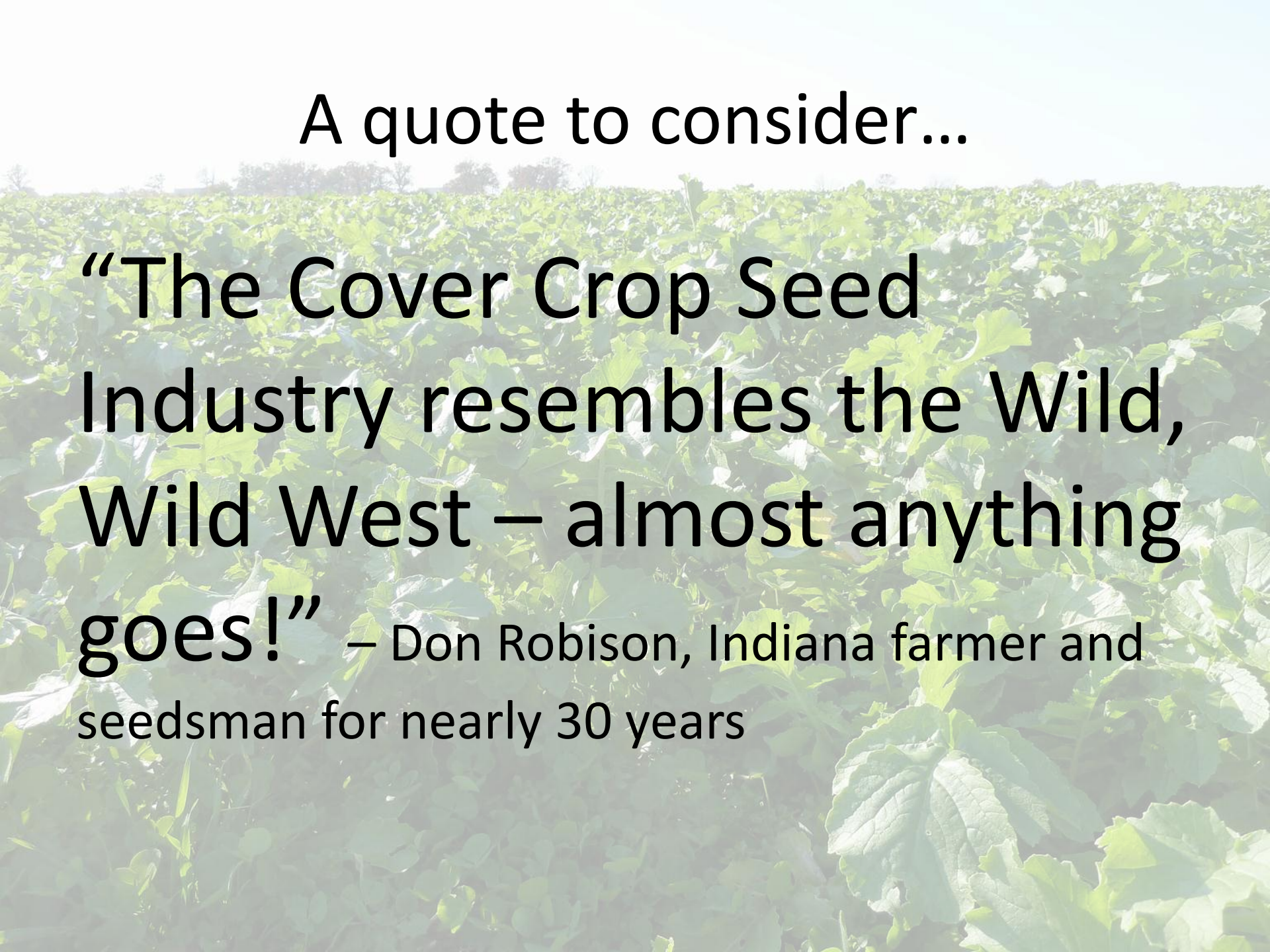


Seed, Selection, Mixtures, and Establishment

Dave Robison
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A photograph of a lush green field of cover crops, likely a vetch or similar legume, growing densely together. The plants have broad, rounded leaves. In the background, a line of trees is visible under a clear, bright sky. The overall scene is vibrant and healthy.

A quote to consider...

“The Cover Crop Seed Industry resembles the Wild, Wild West – almost anything goes!” – Don Robison, Indiana farmer and seedsman for nearly 30 years

Why would Don say that?

- A number of unsubstantiated claims/promises about product performance
- VNS seed that turned out to be “Very Nasty Stuff”
- The good news? It is not *necessarily* true...
- The bad news? It **IS** sometimes true...

Seed Supply

- Cover Crops are gaining in popularity
- Cover Crop seed production areas are expanding
 - Western Canada
 - Northwestern USA
 - Australia & New Zealand
 - Europe
 - Upper Midwest/Plains states USA



Seed Supply

- Production from traditional production areas have expensive competition
 - Wheat and other cereal grains
 - Wheat in Western US ~ \$7 USD/bu
 - Yields ~90-150 bu./acre (~\$840 gross/acre)
 - Corn growing in non-traditional areas
 - Outstanding net profits in past two years
 - Soybeans gain popularity
 - Outstanding net profits in past two years

Seed Supply - is help on the way?

- Producers in other areas are attempting to produce seed to use as a cover crop
 - Missouri (Crimson Clover, Winter Rye, Oats, Annual Ryegrass)
 - Illinois/ Indiana (Winter Rye, Oats, Annual Ryegrass, Radishes, Hairy Vetch, Barley)
 - Iowa/Wisconsin/Minnesota/Michigan (Winter Rye, Oats, Peas, Radishes, etc...)
 - North and South Dakota (Radishes, Winter Rye, Oats, Rape, Turnips, etc...)

Growing Seed for Cover Crops-

Concerns

- Several varieties are PVP'd
 - Against the law to reproduce and sell
 - Is selling seed worth the risk of getting caught?
- For the buyer of locally grown seed...
 - Is the seed clean, tested, and is there a guarantee of seed quality?
 - Did the local grower use proper production protocol?
 - Is “cheap seed” worth a risk?
 - Is “cheap seed” really “cheap”?

No good deals on cheap seed...



Farmer “saved” 50¢/# on cheap seed {\$2.50/acre} (left) and now has a “disaster” on his hands! Good radishes on right cost a bit more but have the tubers farmers want.



Seed Supply- Best Choice

- Purchase from a reliable source
- Work with seedsmen you trust
- Attain a seed test from your supplier
 - Seed tag
 - Seed test (if you are a Seed Dealer/Distributor)

Seed Supply- Supply Issues

- Some cover crop species will be short and/or hard to get into the Midwest by planting time
 - Crimson Clover – increased price and tight supply
 - Annual Ryegrass – shipped ASAP after harvest
 - Winter Cereal Rye – Shipped ASAP after harvest

Seed Selection

- Choose species that work reliably well in your region
 - Conduct local, on-farm trials
 - Network with fellow producers
 - Try new species on a small scale



Seed Selection

- **Set goals for your farm**
 - Do you want to produce Nitrogen?
 - Do you want to scavenge Nitrogen?
 - Do you need to reduce compaction?
 - What crop are you following and in advance of?
 - How will you apply the cover crop?
 - How are you going to terminate the cover crop?
 - What are you willing to spend per acre to achieve benefits?

Do you need feed?



Do you want to produce N?

- Legumes
 - After a cereal crop -works very well in all regions
 - Have been tested and shown to produce over 140#/Acre after wheat (Crimson Clover-Kladivko)
 - Also help build soil organic matter
 - Also help to reduce compaction




Do you want to Scavenge N?


- Annual Ryegrass, Brassicas, and Radishes top the list in the ability to scavenge
- Cereal grains are “good scavengers” as well



Do you want to reduce compaction?



Multiple species
reduce compaction



Annual Ryegrass + Winter Rye = 56" deep roots

Radish boring through a hard pan

Cover Crop Mixtures

- Chose Region Specific Mixes
- Plant Mixtures that help you accomplish your goals
 - Goals may change from field to field
 - Mixtures may be different in each field





Cover Crop Mixtures

- When starting out use “KISS”
 - Oats and Radishes after a cereal grain or early harvested vegetable crop
- Have realistic goals and “Taylor make” your mix to fit your goals



Cover Crop Mixtures

- As you become more comfortable with cover crops you should possibly expand your use of different mixes and species
 - Be confident you can terminate the cover crop
 - Reach goals previously unmet
 - Look for mixes that work in your region and meet your needs

Establishing Cover Crops



Drilling or Planting – the best stand



Planting in 15" rows



Establishing Cover Crops – Between the rows



Aerial Application



Aerial apply into Soybeans at ~50% yellow leaf



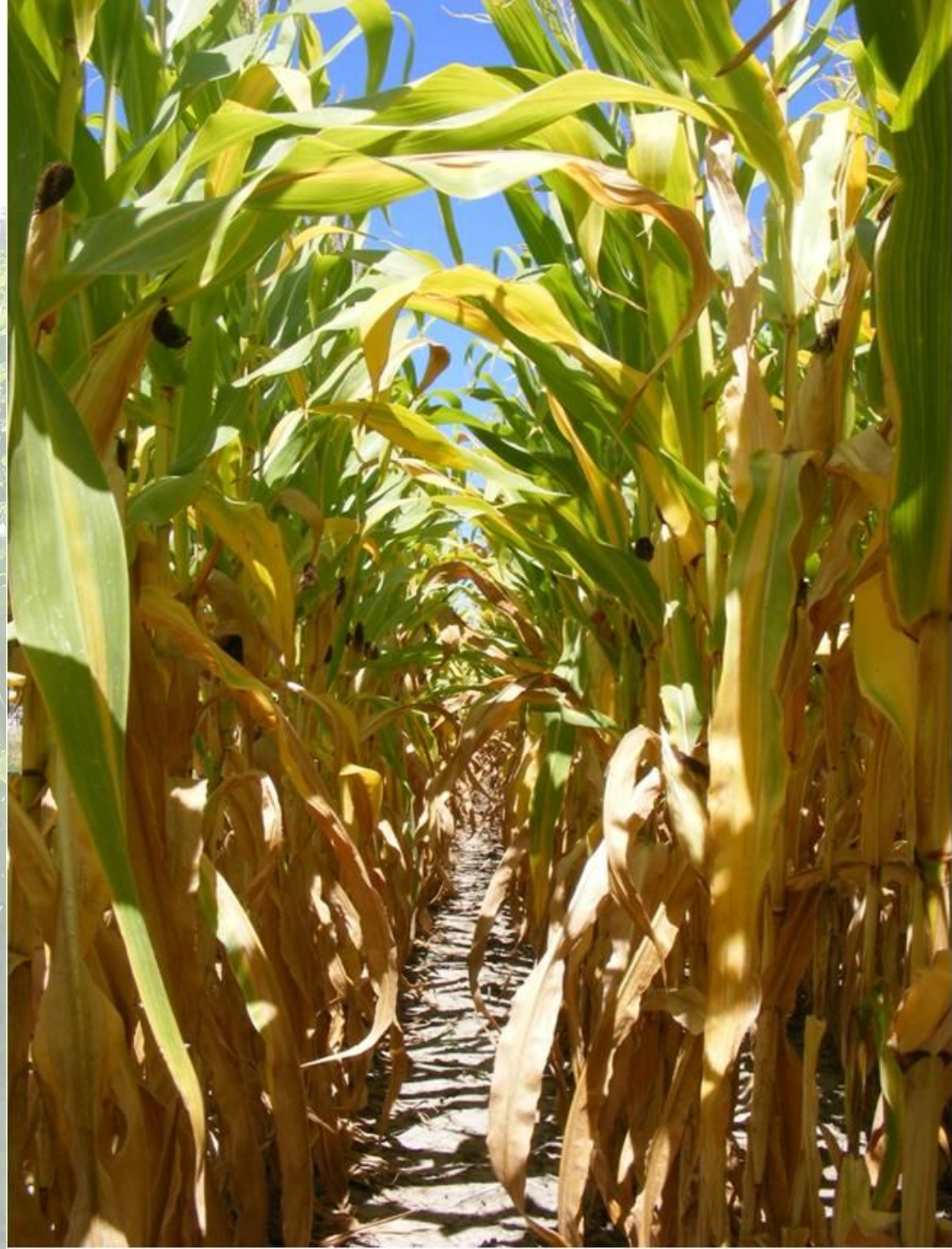


15" rows

7 ½" rows

Corn

- Dried up to ear
- 50% sunlight to ground
- Keys include
 - Moisture
 - Herbicide program
 - Species that work with aerial application



A note from Iowa about aerial application

- Pushing radishes with aerial seeding into a dense, dark corn or soybean canopy is unsuccessful. Once we get some new equipment, like detassellers, then we can see if there is more light into the corn canopy, for example, to improve aerial seeding establishment. – Sarah Carlson PFI

Planting at “lay-by”



Ontario - Planting at “lay-by”- Andy McNiven



Cambridge, Ontario – Planting Radishes at “lay-by”



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PLANT COVER CROPS

Learning about the benefits of planting cover crops.

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CATEGORIES

- Cover Crop Benefits (28)
 - Breaking Up Compaction (10)
 - Cover Crop Roots (10)
 - Fall Grazing (1)
 - Grazing Cover Crops (1)
 - Higher Yields (13)
 - Nitrogen from Cover Crops (8)
 - Planting Radish with Wheat (1)
 - Lower Inputs (4)
 - Manure management (2)
 - Slurry Seeding Cover Crops (1)
 - Soil Improvement (9)
 - Cover Crops and Earthworms (5)
 - Weed Suppression (2)
 - Cover Crop Challenges (2)

Hallelujah – New RMA ruling provides a BIG boost for cover crop users and Agriculture

BY DAVE, ON DECEMBER 1ST, 2011

The Risk Management Agency ruled today to change their policy on cover crop usage and cash crops that follow cover crops. In a previous post I reported some limitations that the RMA had on following cover crops (cover crops could not be headed out, could not be harvested before planting cash crop, etc...).

This good news was . . . → Read More: [Hallelujah – New RMA ruling provides a BIG boost for cover crop users and Agriculture](#)

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When to apply cover crops into soybeans

BY DAVE, ON NOVEMBER 30TH, 2011



For some time I have promoted aerial applying cover crops into standing cash crops. We have a pretty definitive maturity set for corn when it comes to aerial application.

But there is some question of when to fly cover crops into soybeans. The range of discussion on this topic usually goes from 50% yellow leaf to

Plant Cover Crops

Learning about the benefits of planting cover crops.



- Agronomic information on cover crops
- Non-seed company related
 - Hopefully unbiased 😊
- E-mail support to over 1,500 farmers in 2012

Thanks!

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