

Intro to Organic Grain Production
Opportunities, Challenges, Considerations

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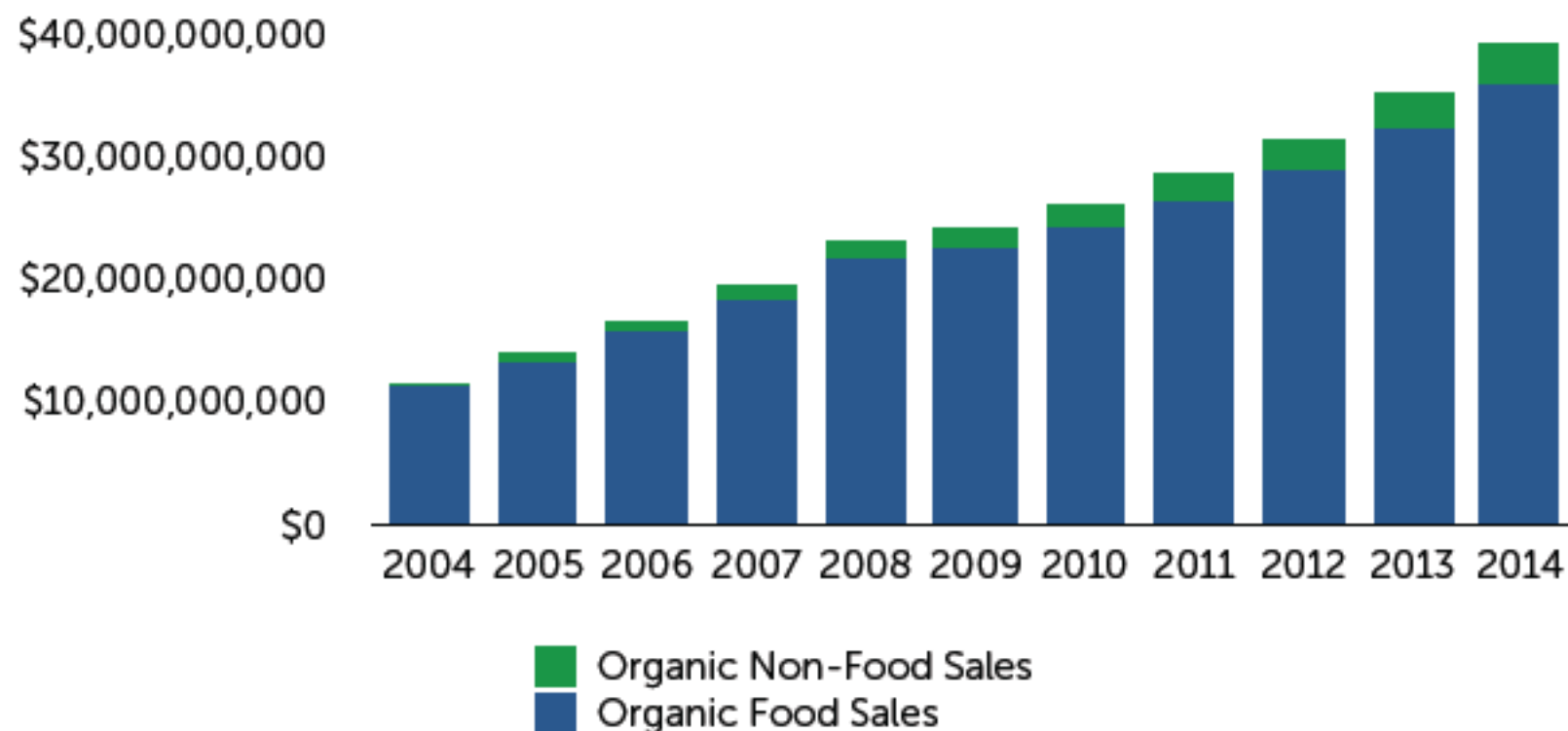


- “Organic is a labeling term for food or other agricultural products that have been **produced according to the USDA organic regulations** ... Producers and handlers must meet these standards to use the word ‘organic’ or the USDA organic seal on food, feed, or fiber. Organic operations must show that they protect natural resources, conserve biodiversity and use only approved substances.”
– Is Organic an Option for Me?” USDA, August 2012
- “USDA Certified Organic products are grown and processed according to USDA’s national organic standards and **certified by USDA-accredited ... certification organizations.**”
–USDA AMS website

***- A production claim - Not a content claim –
Not a food safety claim***

Consumer demand has grown by double-digits every year since the 1990s—and organic sales increased from \$3.6 billion in 1997 to over \$39 billion in 2014.

Total U.S. Organic Sales and Growth, 2004–2014



The vast majority of American consumers purchase organic food products—a recent *Consumer Reports* survey shows that 84% of American consumers purchase organic food.

- **“The biggest thing [in sourcing quality organic items] is making sure we have a constant, consistent supply...” - Costco, Jan 2016**
- **“Organic is the future of agriculture, and there is no other trend.” - Errol Schweitzer, Executive Global Grocery Coordinator at Whole Foods Market**

News

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General Mills doubles down on organic

3/9/2016 - by Rebekah Schouten

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General Mills expects to have 250,000 organic acres by 2019.

MINNEAPOLIS – General Mills, Inc. is accelerating its commitment to more than double the organic acreage from which it sources ingredients. The company expects to have 250,000 acres by 2019, a year ahead of its previous goal.

Increasing organic acreage is a step forward in General Mills' goal to grow net sales from its natural and organic products. The company expects to reach \$1 billion in net sales from natural and organic products by 2019, said Jeff Harmening, the company's vice-president and chief operating officer for U.S. Retail.

"To achieve the growth we anticipate for our natural and

Trust.



BeneGrain

Whole Grains & Seeds Transformed

Superior
flavor and
performance



Soiland Publishing
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THE LARGEST GATHERING FOR
INGREDIENT BUYERS AND
SUPPLIERS IN THE NATION

June 5 - 7, 2016

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Certified Organic Grain Acreage, Corn Belt, 2011

State	Corn	Wheat	Oats	Spelt	Buck- wheat	Rye	Total
Ohio	10,060	2,576	1,673	1,861	233	440	17,474
Indiana	2,950	812	186	77	65	29	4,212
Illinois	8,139	3,539	3,026	226	225	350	15,705
Iowa	25,355	1,939	7,962	2	54	550	38,319
Michigan	15,493	6,358	984	2,187	210	1,793	27,374
Minnesota	28,449	6,898	8,306	2	2,239	1,217	53,630
Wisconsin	33,364	4,218	9,070	151	302	2,320	58,688

10 year Average Price Per Bushel (2006-2015) (FINBIN data – 11 states, 3436 farms)

	Organic	Conventional	Percentage
Soybeans	\$21.49	\$10.11	213%
Corn	\$9.34	\$4.24	220%

Flanagan State Bank – Today

	Organic	Conventional	Percentage
Soybeans	\$24.00	\$9.50	253%
Corn	\$8.00	\$3.50	229%

Farm Lease 2017 – CORN Comparison

Conv.

	50/50 lease	225 fixed w/bonus	35% gross	Fixed \$250	Fixed \$300	Fixed \$350
Income	\$369	\$738	\$738	\$738	\$738	\$738
Expense	\$529	\$972	\$1,005	\$997	\$1,047	\$1,097
Net Cash	(160)	(234)	(267)	(259)	(309)	(359)
Breakeven Yield	294bu	270bu	279bu	277bu	291bu	305bu

Org.

	50/50 lease	225 fixed w/bonus	35% gross	Fixed \$250	Fixed \$300	Fixed \$350
Income	\$600	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
Expense	\$591	\$1150	\$1232	\$1062	\$1112	\$1162
Net Cash	9	50	(32)	138	88	38
Breakeven Yield	148bu	144bu	154bu	133bu	139bu	145bu

Net Cash Diff.	\$169	\$284	\$235	\$397	\$397	\$397
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Farm Lease 2017 – SOYBEAN Comparison

Conv.

	50/50 lease	225 fixed w/bonus	35% gross	Fixed \$250	Fixed \$300	Fixed \$350
Income	\$304	\$608	\$608	\$608	\$608	\$608
Expense	\$404	\$748	\$754	\$761	\$811	\$861
Net Cash	(100)	(140)	(146)	(153)	(203)	(253)
Breakeven Yield	86bu	80bu	81bu	81bu	87bu	92bu

Org.

	50/50 lease	225 fixed w/bonus	35% gross	Fixed \$250	Fixed \$300	Fixed \$350
Income	\$600	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
Expense	\$520	\$1026	\$1156	\$926	\$976	\$1026
Net Cash	80	174	44	274	224	174
Breakeven Yield	43bu	43bu	48bu	39bu	41bu	43bu

Net Cash Diff.	\$180	\$314	\$190	\$427	\$427	\$427
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Challenges to organic grain production

- Weed management**
- Markets – price discover - transparency (?)**
- Yield drag / Achieving yields**
- Navigating 36-month transition**
- Certification process and paperwork**
- Access to information / Support network**
- Capital - Does your banker support you?**
- Labor requirements**
- Cost and availability of inputs**

Shift in mindset – substitute inputs with knowledge and management/labor

- **“You’ll need more than just financial reasons” – Carmen Fernholz**
- **Organic mgmt. is not prescription farming**
- **Site and management specific**
- **“What about the cropping system allows a given pest to thrive or find a niche? Identify it and ‘close the door!’” – Klaas Marten**
- **Not an abandonment of technology – Mark Doudlah**

Foliar feed based tissue tests

Cultivating 15" Rows w/Tramlines & RTK

Hands free RTK cultivation-Black Beans



Non chemical weed control without tillage

Goals

- Weed control
- Adequate yields
- Build soil health
- Minimize passes

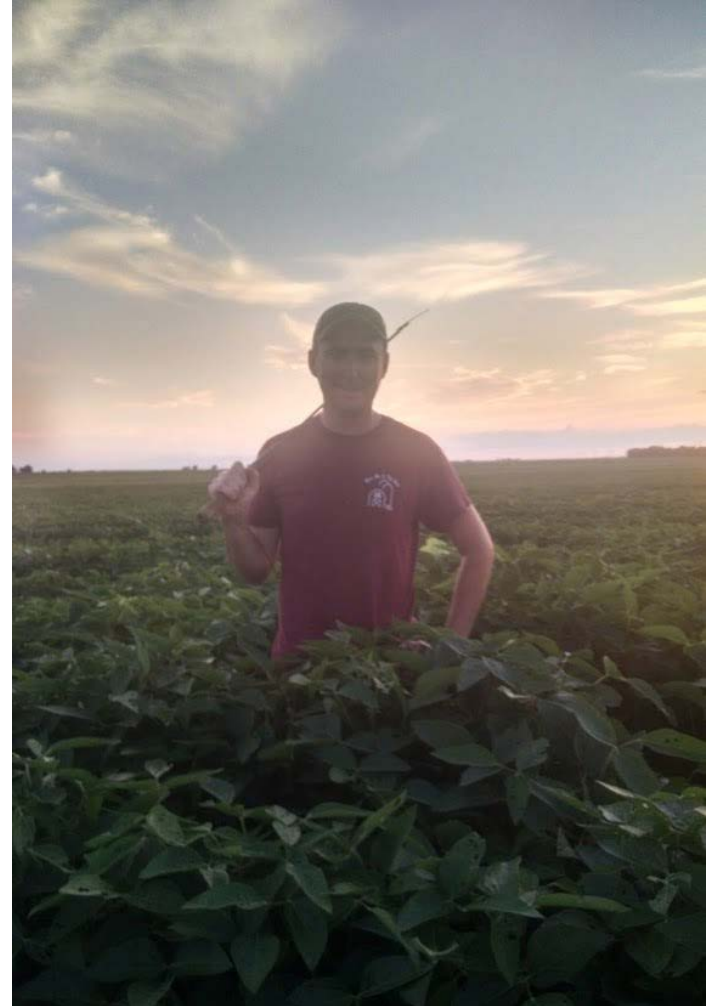
Current Organic Weed Control

- Rotation
- Tillage
- Hand weeding



Downside of tillage

- Soil disturbance
- Time consuming
- Weather dependent
- Misses in row weeds



No till Organic Soybeans

- Developed by Rodale Institute
- Relies on cover crops and roller crimper
- Potentially a one pass system
- Still being perfected



My Trial

- .30 acres total in first year transition
- .15 acres cultivated (organic standard)
- .15 acres uncultivated (organic no till)
- .Conventional soybeans previous year

My Trial- Organic Standard

- .No till drilled 100# cereal rye after soybean harvest on September 28, 2015
- .2016 field work- 36.7 hours (2.45hrs/a)
 - Chopped rye with stalk chopper
 - Disked 3 times and field cultivated 1 time prior to planting
 - Plated soybeans at 140,000 population
 - Rotary hoe 1 time, row cultivated 2 times and hand weeded 1 time

My Trial- Organic Standard

- .100# cereal rye- \$25/a
- .Time for field work at \$15/hr- \$36.70/a
- .Fuel consumption at \$1.64/gal-\$21.60/a
- .Soybean yield 52 bu. at \$10/bu.-\$520/a
- .Net profit per acre- \$436.70/a

My Trial- Organic No Till

- .No till drilled 150# cereal rye after soybean harvest on September 28, 2015
 - 75# at one angle and 75# at opposite angle
- .2016 field work- 16.5 hours (1.1hrs/a)
 - Crimped cereal rye
 - Plated soybeans at 140,000 population
 - Combined

My Trial- Organic No Till

- .150# cereal rye- \$37.50/a
- .Time for field work at \$15/hr- \$16.50/a
- .Fuel consumption at \$1.64/gal- \$13.35/a
- .Soybean yield 50 bu. at \$10/bu.-\$500/a
- .Net profit per acre- \$432.65/a

My Trial- Results

- \$436.70/a tilled vs. \$432.65/a no till
- Net loss of \$4.05/a
- Gained benefit of less time, more soil activity, 100% ground coverage
- Same adequate weed control and little yield difference
- Future breeding can improve yields in this kind of environment

How it worked













A photograph of a garden bed with a wooden frame. The bed is filled with soil and straw mulch. There are several green plants growing in the bed. The date "September 27" is overlaid in the center of the image.

September 27

A photograph of a large field of rye plants. The plants are green and appear to be in the early stages of grain development. The field is divided into two sections by a narrow path or boundary. The left section is labeled '150# Rye' and the right section is labeled '100# Rye'. The background shows a clear sky and a distant horizon line.

150#

Rye

100#

Rye

New Things to Consider

- Planting an earlier maturing rye for a more consistent crimp and still plant at the same time
- Planting a higher population 160,000
- One pass with high residue cultivator at least on end rows
- Planting rye thicker than 150#/a

New Things to Try



Strip Till



Under cutter



Radish's



Contact Information

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Organic Grain



IN CCA Conference





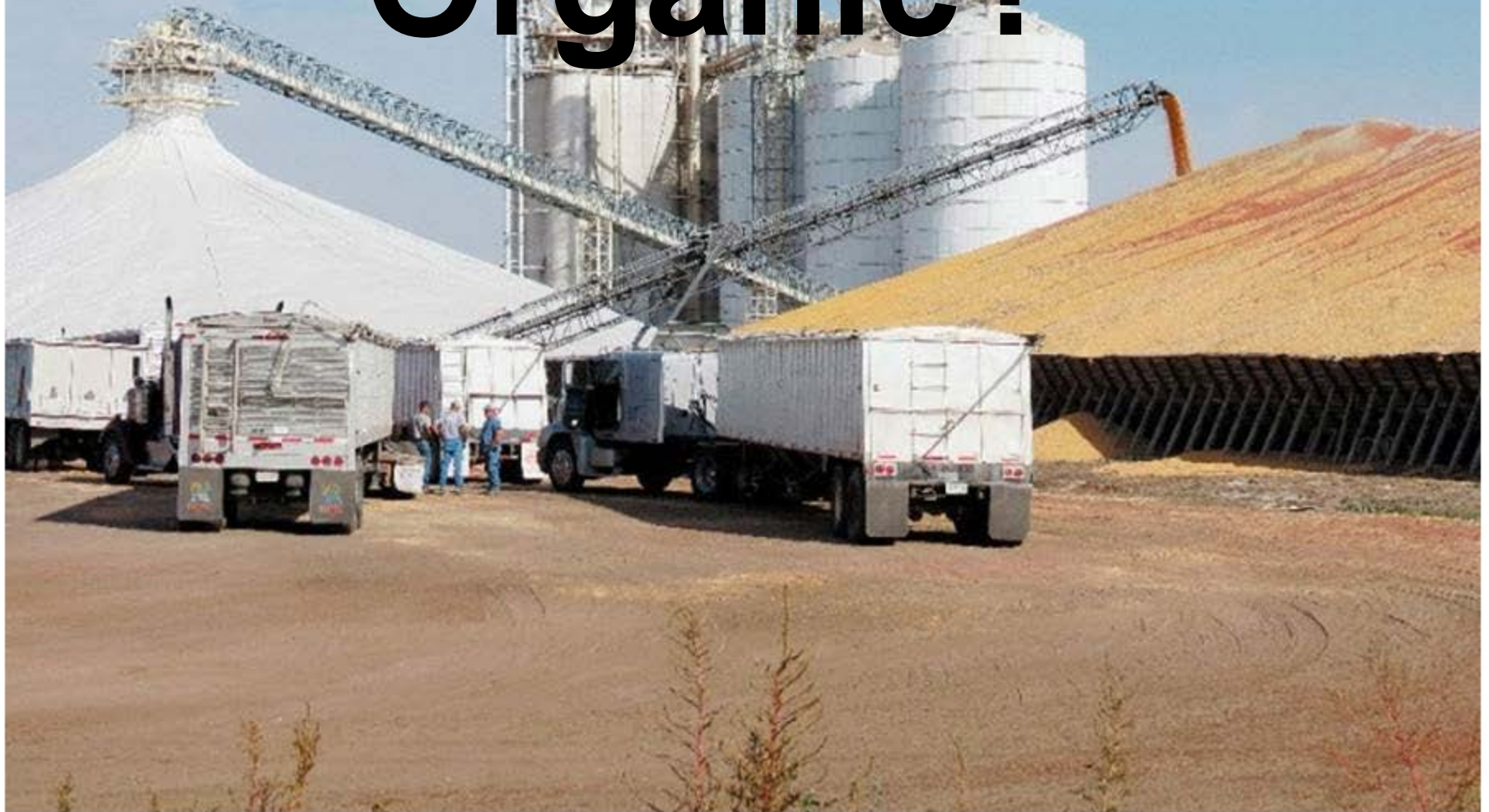


Organic means:

- Emphasis on biodiversity, renewable resources, and conservation of soil & water
- Produced without synthetic pesticides, fertilizers, sewage sludge, bio-engineering, or irradiation
- Farms are inspected by a third party NOP accredited inspector annually
- 3 years from last application of prohibited substance to first crop eligible for certification



Why Organic?



Why Organic?

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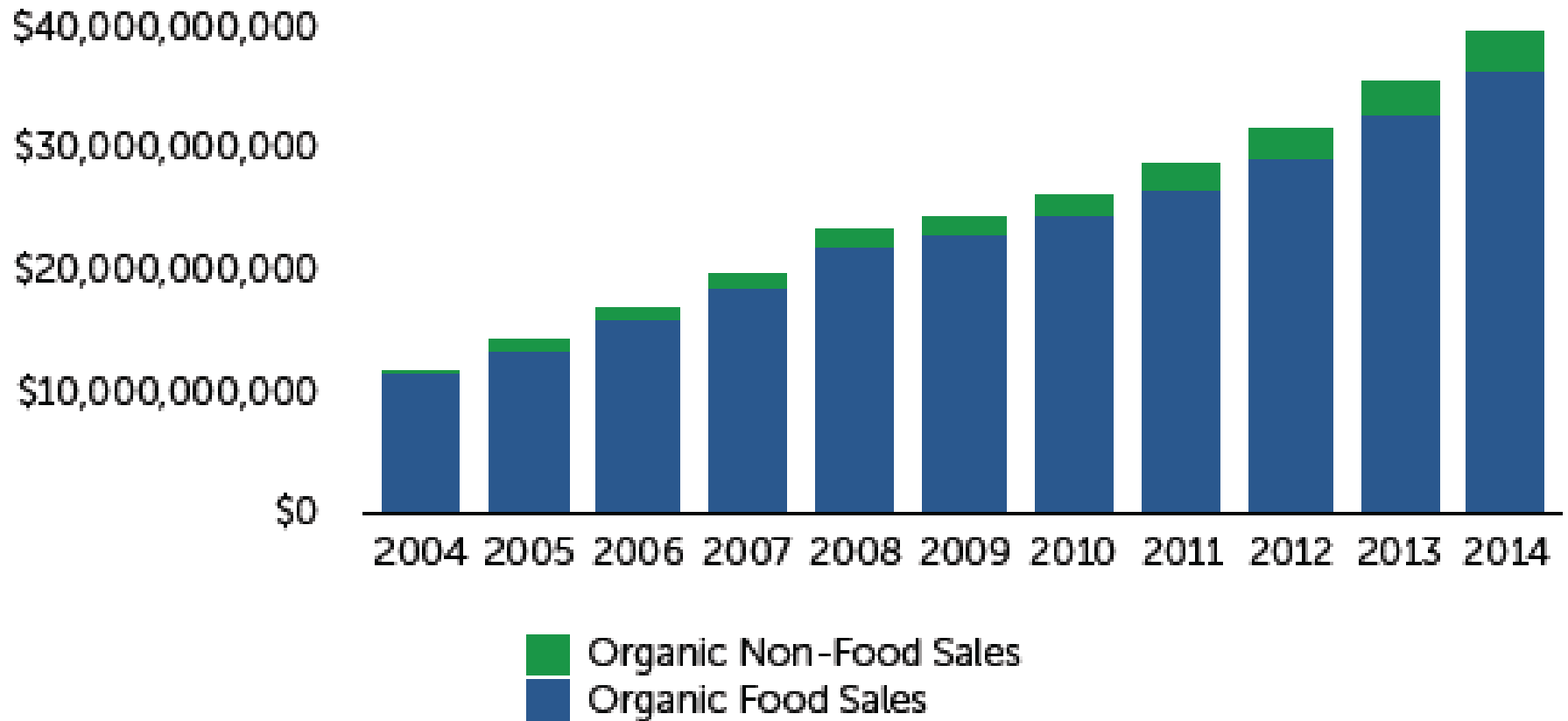


	% Actively try to include	% Actively try to avoid	% Don't think about either way
18 to 29 years	53	13	32
30 to 49 years	48	13	38
50 to 64 years	45	16	38
65+ years	33	19	44
<hr/>			
Republican	40	20	40
Independent	45	14	38
Democrat	48	12	36
<hr/>			
Household annual income \$75,000+	49	11	39
Household annual income \$30,000 to \$74,999	45	13	40
Household annual income under \$30,000	42	24	31

July 7-10, 2014

Why Organic?

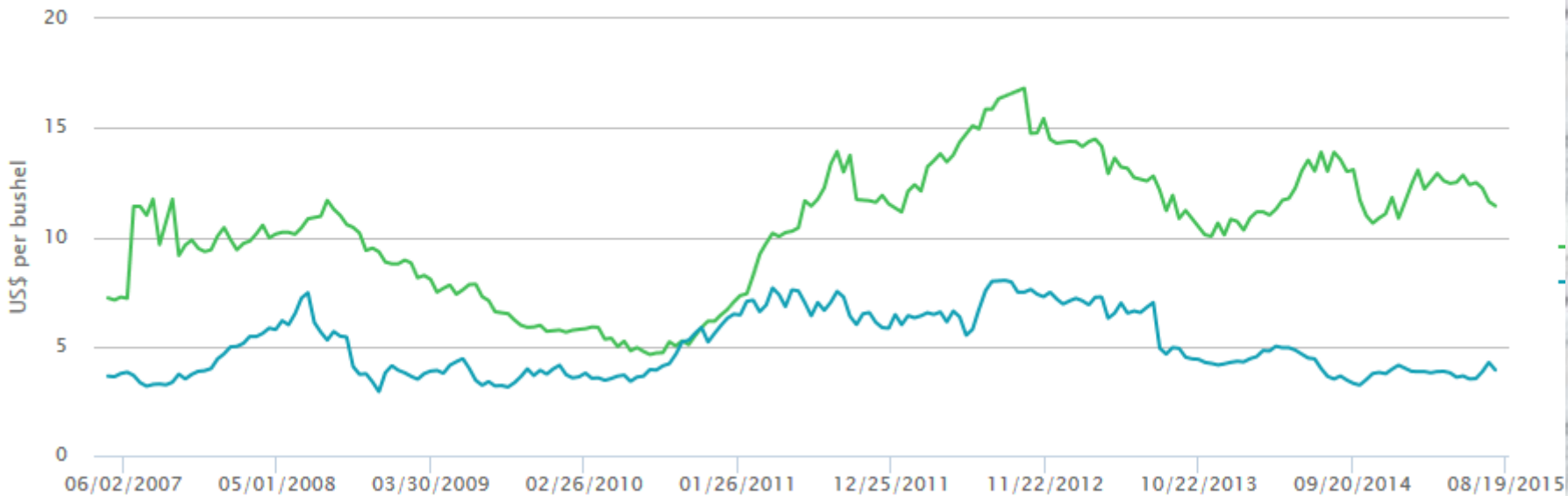
Total U.S. Organic Sales and Growth, 2004–2014



MARKET PRICE

Organic Corn (04/14/2007-08/09/2015)

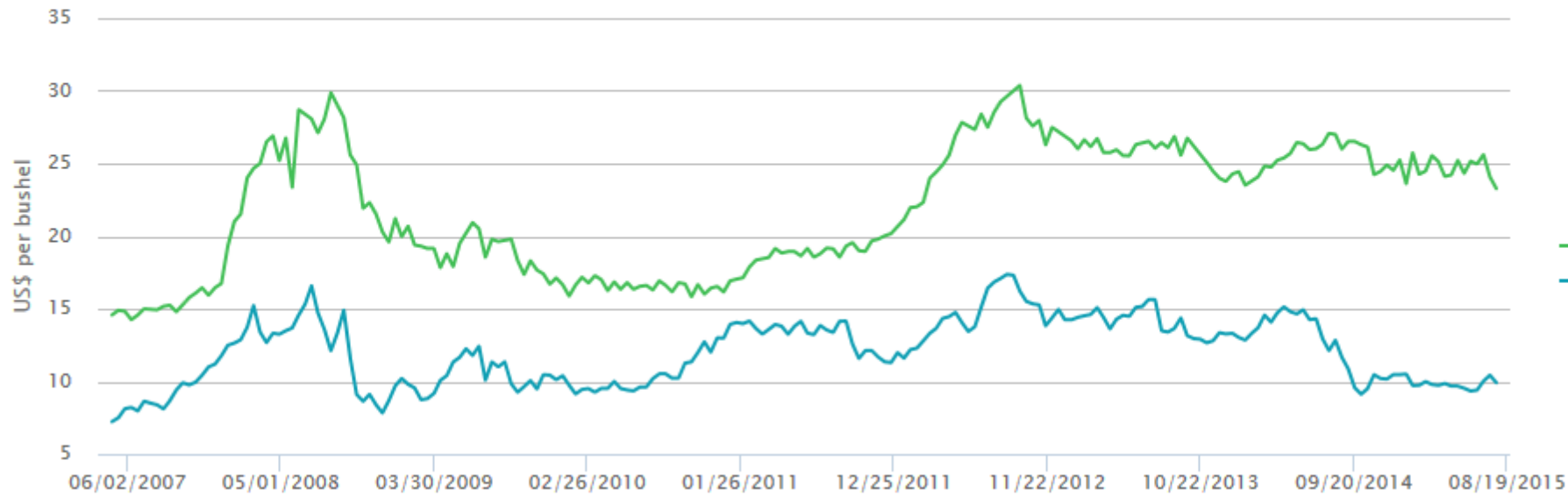
● Organic C



MARKET PRICE

Organic Soybeans (04/14/2007-08/09/2015)

● Organic C



Why not organic?

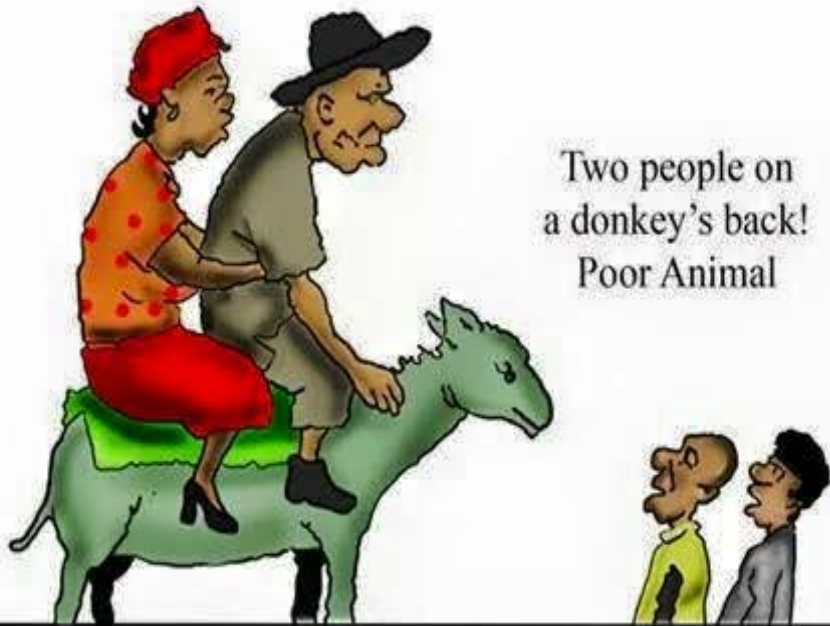
Demands of :

- Labor
- Management
- Risk
- Innovative & Enterprising Spirit.

Why not organic?

Fear of:

- the unknown
- of change
- of social pressure



Two people on
a donkey's back!
Poor Animal

How cruel he
is by letting
his wife
walk?!



How stupid he
is by letting
his wife
take the ride
alone?!



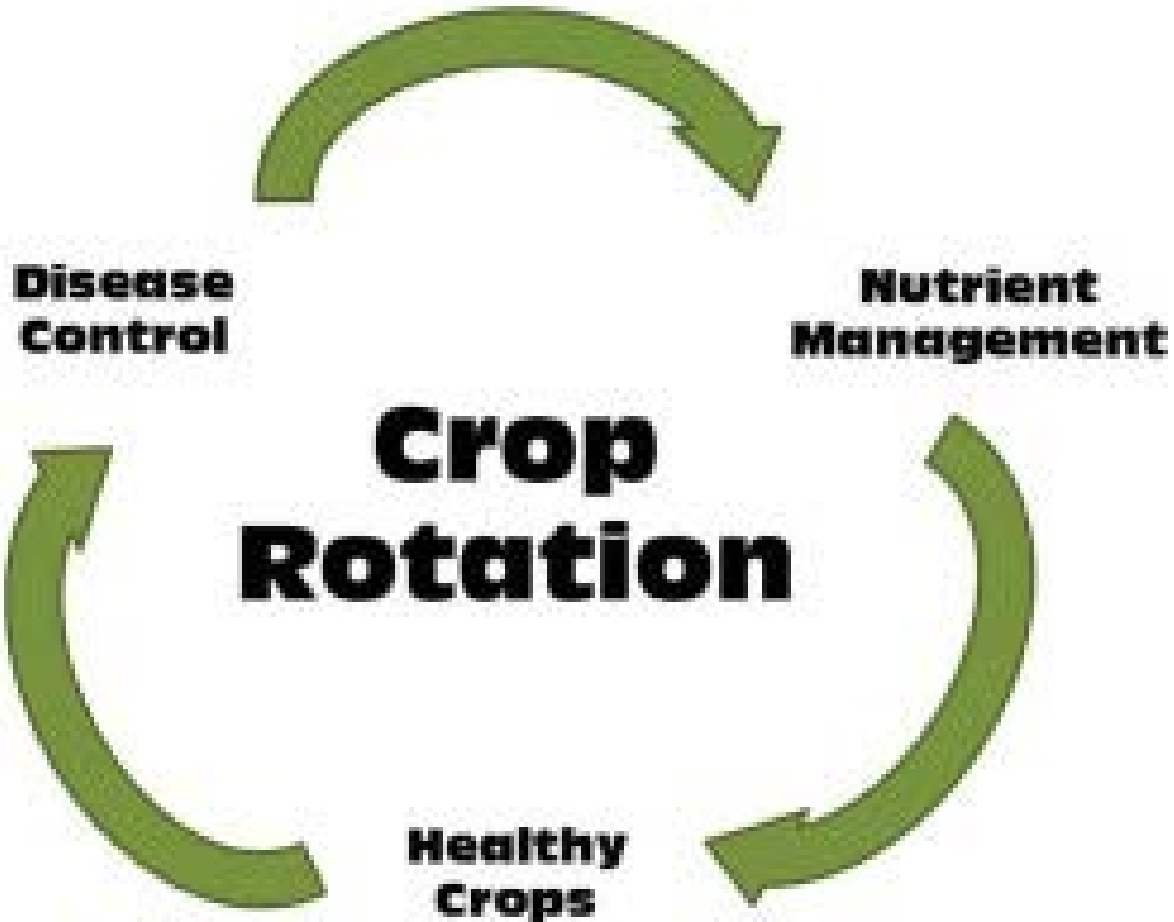
Fools!!
Don't even
know how to
utilize the
donkey!!



Why not organic?

- Not enough time left in your farming career to recoup the transition investment
- Lack of experience & knowledge of agronomic practices
- Lack of a support group

Cash Grain Rotation



















































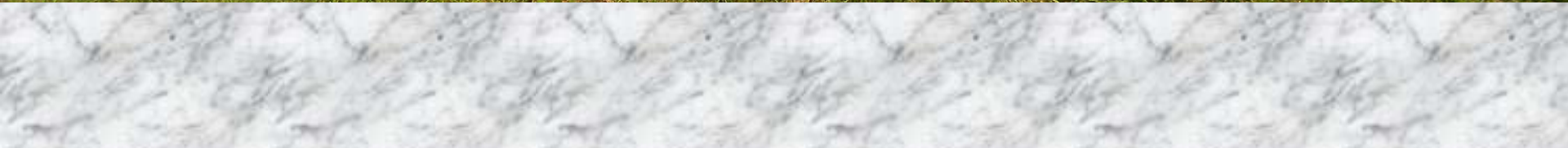
Flaming



Lightning Weeder







Alphabet Plan!





⚠ DANGER
Read the operator's manual.
Do not touch the blades when the machine is running.

⚠ WARNING
Do not touch the blades when the machine is running.

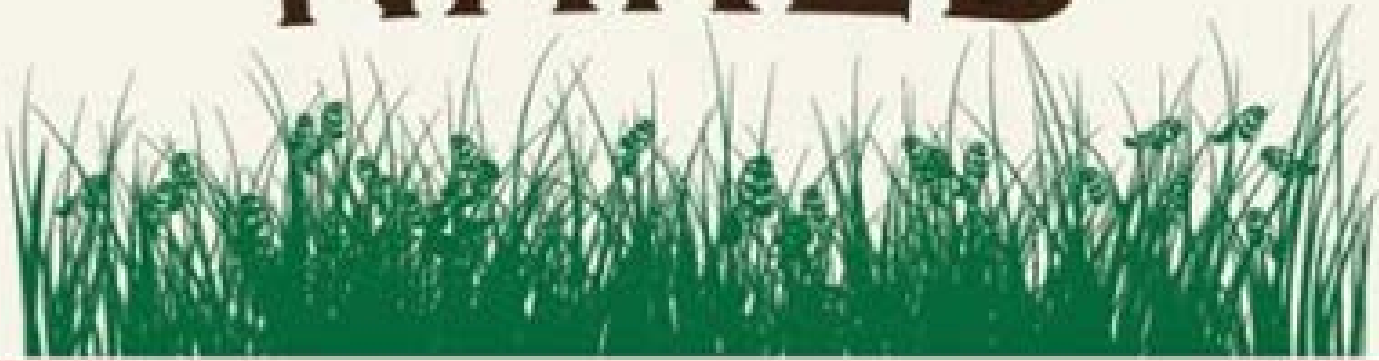


9570 STS





DON'T FARM
NAKED



PLANT COVER CROPS



Why Cover Crops?

**"Take care of the land, and it will take care of you.
Take what you need from the land, but need what
you take."**

- Aboriginal law















Thank You!



- aambriole@frontier.com
- 260-413-3812
- facebook.com/biostewardfarms

Getting Certified under the National Organic Program (NOP)

- Step by Step



The Application Process

(for most certifiers)

Step 1: Application - Client requests and fills out an application form. Information packets and forms may be available for a fee or free.

- Payment of application fee: Most certifiers require an application fee before they begin to process an application. All fees should be described in your certifier's information packet or manual. Most are not refundable.

Step 2: Primary Technical Review - Someone will review your application for completeness and look for possible "red flags." At this point the certifier should communicate back with you and inform you that they are proceeding or that there is a problem.



Step 3: Inspection

Review of documentation and observation of compliance or non-compliance



Note: If you notice any discrepancy in your inspection report, notify the certification Agency.

Certification Status Notification

Step 4 – Inspection report review

Step 5 – Certification Status Notification - The certifier will notify you of their findings and provide opportunity for you to reply. Notification may indicate that your certification is:

- ❖ Granted
- ❖ Denied
- ❖ Continued, or
- ❖ Granted certification pending coming into compliance with specified requirements in a specified timeframe.



205.202 Land requirements



Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “organic,” must:

- (a) Have been managed in accordance with the provisions of §§205.203 through 205.206;
- (b) Have had no prohibited substances, as listed in §205.105, applied to it for a **period of 3 years immediately preceding harvest of the crop**; and
- (c) Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.