

Doudlah Farms LLC Evansville WI

The WHY'S & HOW'S behind TRANSITIONING to ORGANIC?



92 bu/ ac Organic Wheat 2012



College of
Agricultural & Life Sciences
UNIVERSITY OF WISCONSIN-MADISON
Growing the future

Mark.r.Doudlah@gmail.com or 608.490.0925

Plant Cereal Rye in place of your herbicide for Food Grade Soybeans



1. 110 # Cereal Rye
2. Residue + PL from AgriEnergy
3. Dry Nutrients if needed
4. 500+Hp to keep it rolling

Jeff Moyer of Rodale speaking at 2014 MOSES Conference



Doudlah Farms Field Day, Standing room only!

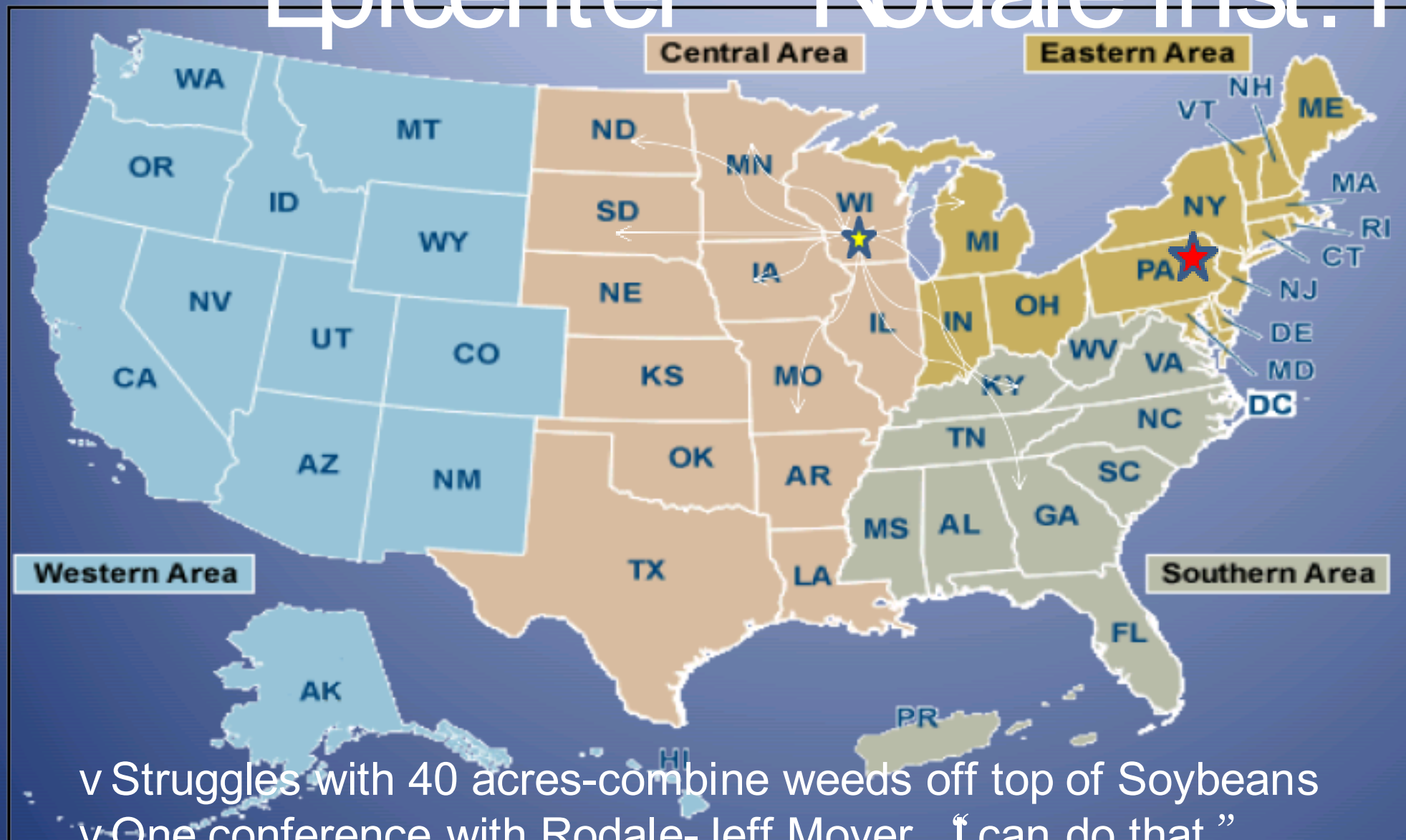
Kentucky, North & South Dakota, Minnesota, Michigan, Iowa,
Illinois, Wisconsin, Georgia



Erin Silva-Crimped Cereal Rye



Epicenter – Rodale Inst. PA



- v Struggles with 40 acres-combine weeds off top of Soybeans
- v One conference with Rodale-Jeff Moyer “I can do that”
- v 600+ Acres later –SUCCESS
- v One Year later held our own FIELD DAY
- v 200 farmers gathered to see how to Crimp Cereal Rye-Erin Silva
- v UW-Madison ground truthing is instrumental to my success- Organic is not passed down from Generation to Generation.
- v 2017 –1,400+ acres will be ORGANIC Thank You Rodale Institute !

Weed Control - Get it right in the fall!



Cereal Rye Seeding

1. Its all about the Planting Date
 - Prefer to follow the corn combine with drill!
2. Seeding Rate is secondary 110#s+
3. Drill seeding more consistent than air plane
 - Late wet corn harvest
 - Air plane only viable option?
 - Increase seeding rate 150#s+
 - Plant perimeter twice

Add 7.5 ton of biological active carbon while you plant!

Rye roots feed your soil biology and crop
Weather proof your soil and crop Yields



Crimped Rye

Field M & D- upper field

Rolled down June 4th. Projected 3-5 ton dry matter



Not all crimpers are created equal



25-35% of Cereal Rye Stand
goose necked up
Recrimped 3-5 days later
1-3% heads left standing

- Crimprite roller by Ritegate requires recrimping even at 550#/ft
- Chevron less likely to need recrimp at 230#/ft



Don't Panic

Narrow rows will
close canopy

All rainfall will be
infiltrated

Cereal Rye will
maintain weed
control thru fall



No-till beans- Keehn Field

Doudlah Farms, July 23



No-till beans –Keehn Field

NOTE: weed control July 23



Notill beans —Keehn Field

Doudlah Farms, Sept 16



Foliar application in soy (Fish+SP-1+Ksulfate+Micros)



Notill-Crimp Dry Edible black beans –Sept 20



Jason the Weeding Crew Leader



“It’s like Combining on Carpet,”
Robin Brekken



Notill beans —Keehn Field

Doudlah Farms, 47 bu/ ac



The Why - \$\$\$

Jerry Maguire



“SHOW ME the
MONEY!”



Transitional or Organic Food Grade Soybeans in just 4 passes!

Food Grade Clear Hylem Soybeans		
Production Costs	Transitional	Organic
Cereal Rye 110#s	\$ 28	\$ 40
Residue	\$ 8	\$ 8
Salford RTS 522	\$ 20	\$ 22
FG Soybean Seed 1.6 units	\$ 55	\$ 80
Anderson EA(humic)	\$ 9	\$ 9
Salford seeder	\$ 20	\$ 22
Roller	\$ 10	\$ 10
Foliar Feed	\$ 26	\$ 26
Sprayer	\$ 8	\$ 8
Combine	\$ 30	\$ 32
Haul	\$ 7	\$ 8
Certification		\$ 13
Total Cost	\$ 221	\$ 278
Revenue 45bu/ac	\$ 585	\$ 1,328
Return to Land & Mgmt FG Soy	\$ 365	\$ 1,050

Ave Notill-Crimped Rye bpa	45.2
Ave Chemical program beans bpa	49.5
Crimped Rye- Chem Beans bu	-4.3
Price bpa	\$ 13
Crimped rye yield loss	\$ (55.90)
Gangster+Roundup+cobra	\$ 82.83
Crimped Rye Profit over chemical FGbeans	\$ 26.93
3 year ave yield RR soybeans bpa	55
Price	\$ 10
Gross	\$ 550
Food Grade Bean bpa	45.2
Food Grade Premium	\$ 12.75
Gross	\$ 576.30
Crimped Rye FGsoy Advantage vs. GMO	\$ 26.30

Crimping with Confidence starts with UW-Madison

- UW-Madison Dr. Erin Sylva WI
- David Brandt OH-fellow crimper
- Reginald Destree WI-Organic Consultant
- Robin Brekken ND-fellow crimper
- Jason Doudlah WI-son
 - Next generation to Crimp rye



Wheat



Growing Nitrogen after Wheat



The Why - \$\$\$



Jerry Maguire

“SHOW ME the
MONEY!”



Organic Wheat

Organic Wheat		
Production Costs	Organic-2012	Organic-CRP
Residue+cocktail	\$ 35	\$ 35
Plow	\$ 15	\$ 15
Pick Rock	\$ 6	\$ 6
Salford 2x	\$ 30	\$ 30
Organic Wheat Seed	\$ 60	\$ 60
Foliar Spray	\$ 20	\$ 20
Sprayer	\$ 8	\$ 8
Combine	\$ 40	\$ 42
Haul	\$ 18	\$ 2
Certification	\$ 12	\$ 9
Total Cost	\$ 245	\$ 227
Yield bpa	92	43
\$/bu	\$ 13.50	\$ 18.50
Revenue	\$ 1,242	\$ 924
Return to Land & Mgmt	\$ 997	\$ 697

Planting Medium Red Clover for Corn



Organic Corn starts with aerial seeding Red Clover
into growing Winter Wheat



Growing Nitrogen after Wheat



Organic Corn –Red Clover plow down

- Note sprayer pass with Residue



2013 pre-emerge surface application

- High Calcitic Lime (500#/ac)
- Gypsum (500#/ac)
- Compost (1,000#/ac)
- Chicken pellets (1,600#/ac)
 - Worked into soil



Supercharge your corn seed

- Myco seed treatment on seed
- Chilean nitrate 2 "x2" placement
- Fish, SP-1, Molasses, Bio Repel, Ecotec, Mycotrol O in the Seed Trench



Don't risk your high value organic crop by planting NAKED

Corn 40 days after planting

Doudlah Farms, Evansville, WI





2nd crop out of CRP
Following wheat/clover in 2013
< 50# added N in 2014
= 201 bu/a Organic Corn in 15 'Rows



Prairie Hybrids 3081 Food Grade

Competitive weeds only in 30 'tramlines



2011 Implemented Tracked Tramlines

- Improve soil health
- Increase infiltration and percolation



Harvest Organic Corn



Spraying Residue while Crimping Stalks



The Why - \$\$\$



Jerry Maguire

“SHOW ME the
MONEY!”



2014 Organic Corn

Production Costs	Transitional	Organic
Med Red Clover 12#s	\$ 17	\$ 27
Airplane	\$ 14	\$ 14
Residue+cocktail	\$ 35	\$ 35
Plow	\$ 15	\$ 15
Pick Rock	\$ 6	\$ 6
Salford 2x	\$ 30	\$ 30
Corn seed 40K	\$ 90	\$ 125
In furrow	\$ 58	\$ 58
2"x2"	\$ 94	\$ 94
Kinze Planter	\$ 18	\$ 20
Tine weed 2x	\$ 9	\$ 9
Cultivate w sidedress	\$ 99	\$ 99
Cultivate	\$ 12	\$ 12
Foliar Spray	\$ 20	\$ 20
Sprayer	\$ 8	\$ 8
Combine	\$ 30	\$ 32
Haul	\$ 10	\$ 31
Certification	n/a	\$ 29
Total Cost	\$ 565	\$ 664
Revenue 201bu/ac	\$ 754	\$ 2,915
Corn Return to Land & Mgmt	\$ 189	\$ 2,251

Canning Peas ahead of Dry Edibles



Dry Edible Black Beans (Zorro) after Peas



Hatzenbichler Tine Weeder 40 ' ,



In Row Weeding –WOW!



Cultivating 15 'Rows w/Tramlines & RTK



15 'Row Dry Edible Beans



Organic Black Beans



Harvesting Black Beans



The Why - \$\$\$



Jerry Maguire

“SHOW ME the
MONEY!”



Early Peas double cropped with Dry Edibles

Peas		
Production Costs	Transitional	Organic
Sprayer	\$ 8	\$ 8
Residue+cocktail	\$ 35	\$ 35
Plow	\$ 15	\$ 15
Pick Rock	\$ 6	\$ 6
Salford 2x	\$ 30	\$ 30
Drill Peas-Seneca	\$ 22	\$ 22
Tine weed 2x		
Foliar Feed	\$ 35	\$ 35
Pea Combines	Seneca Foods	Seneca foods
Certification	n/a	\$ 6
Total Cost	\$ 151	\$ 156
Revenue 2,000 #/ac	\$ 360	\$ 560
Return to Land & Mgmt	\$ 209	\$ 404

Black Beans		
Production Costs	Transitional	Organic
Oats 2 bu	\$ 16	\$ 21
Salford 1x	\$ 14	\$ 14
Residue+cocktail	\$ 35	\$ 35
Plow	\$ 15	\$ 15
Pick Rock	\$ 6	\$ 6
Salford 2x	\$ 30	\$ 30
Spreader	\$ 10	\$ 10
Hi Calcitic Lime	\$ 13	\$ 13
Gypsum		
Compost	\$ 20	\$ 20
Tine weed 3x	\$ 27	\$ 27
Foliar Spray	\$ 51	\$ 51
Cultivate	\$ 12	\$ 12
Foliar Spray	\$ 20	\$ 20
Sprayer	\$ 8	\$ 8
Combine	\$ 40	\$ 42
Haul	\$ 80	\$ 53
Certification	n/a	\$ 9
Total Cost	\$ 396	\$ 385
Revenue T\$.55@1.6k O\$.88@1.05k	\$ 882	\$ 924
Return to Land & Mgmt	\$ 486	\$ 540
Peas Return To Land & Mgmt	\$ 209	\$ 404
Double Crop Pea & Black Bean Total	\$ 695	\$ 943

Two Rotations —mechanical action-CROP (cover crop)

Tillable Lands

- Year 1 crimp-SOY(vetch)
- Year 2 crimp-CORN(cereal rye + red clover)
- Year 3 plow-Canning PEAS(optional 0r Forage peas)/ DRY EDIBLES(wheat)
- Year 4 WHEAT(vetch/ tillage radish/ mustard/ buckwheat)
- Year 5 diskrip-DRY EDIBLES(red clover)
- Year 6 plow-CORN(cereal rye)

HEL Lands

- Year 1 crimp-SOY(cereal rye + vetch)
- Year 2 RYE+VETCH(vertile-tillage volunteer vetch)
- Year 3 crimp-CORN(cereal rye)

Transition Plan to Organic

Rotation on Acceptable Tillage Fields (denotes cover crops)				crimpSOY(vetch)-crimpCORN(c. rye+dover)-plowCanningPEAS(optional 0r Forage peas)/DRYEDIBLES(wheat)-WHEAT(vetch/tillage radish/mustard/buckwheat)-plowDRYEDIBLES(med. red dover)-plowCORN(c. rye)																						
Rotation on HEL crimp only fields (denotes cover crop)				crimpSOY(c. rye+vetch)-RNE+VETCH(vettillage volunteer vetch)-crimpCORN(c. rye)																						
Difficult hydrological conditions for Organic				MB4010																						
2014		last pesticide		Crop	SQFT		2015 crop							2016 crop						2017 crop						
Farm Group	Group Acres	Farm	acres	36 month date	2014	Inspection 11.6.14	Comment	Corn	P/DE	FG Soy	Wheat	Trit/vetch	Rye/Vetch	Forage Peas	Corn	P/DE	FG Soy	Wheat	Trit/vetch	Rye/Vetch	Corn	P/DE	FG Soy	Wheat	Trit/vetch	Rye/Vetch
1 Corn(crye)-soy	192	Batly	78	summer 2014	C	? Rye				78					78								78			-
		Kens	78	summer 2014	C	15 rye				78					78								78			
		Casey3	36	Organic	orgC	4-6 PBVetch				36					36								36			
2 CORN(crye)-peas	225	Brooklyn	122	summer 2014	C	6 oats2.5 Vetch		122	x	x									122				122			
		Riley M	72	summer 2014	C	5 rye 1 vetch	better on hill		x	72									72				72			
		Monson S	31	summer 2014	S	6-8 oats			31					x					31				31			
3 SOY(vetch)	155	Birk 160	155	summer 2014	S	.5rad .5rye 1.5 vetch .5 dover	low seeding rate=poor stand		155									155				155				
4 Peas/DE(wheat)	140	Cooksville North	50	summer 2013	DE	8oat 8vetch 8dover		50								50					50					
		Cooksville middle	20	summer 2014	C				20										20							
		Keelns Inner and East	30	summer 2012	DE	8oat 8vetch 8dover		30								30					30					
		Porter West	40	Organic	P/DE	8oat 8vetch 8dover	excellent	40								40					40					
5 Soy(vetch)-corn	133	Casey2	36	Organic	P/DE	4-6 PBVetch		36								36								36		
		Keelns	85	summer 2013	S	1 C Rye	thick residue	85									85							85		
		Porter East Tobacco	5	summer 2013	S	none								5		5								5		
		Porter East Center	6	summer 2013	S	none								6		6								6		
		Porter East Jeff garden	1	summer 2013	S	none								1		1								1		
6 Soy-DE	173	Tuttle	173	summer 2013	S	5 oat2 vetch 1 dover			173									173				173				
7	296	Porter DJ Wilder	33	summer 2012	DE			33									28			5	33					
		Porter East South	43	summer 2013	S							43					43				43					
		M+D Lower	18	summer 2014	C								18							18						
		M+D Upper	21	summer 2013	S							21							21		21					
		Magnolia	72	summer 2014	S	9-16 oats4-6 vetch	excellent no rye matt						72							72						
		Cooksville South	110	summer 2014	C									110						110						
8	115	Birk 40	37	summer 2014	S				37								37						37			
		Birk 80	78	summer 2014	S				78									78						78		
1,429 Totals			1,429					396	379	379	-	64	200	12	192	168	271	573	21	205	591	398	307	133	-	-
spelt				Organic				139	-	36	-	-	-	-	36	168	71	-	21	5	591	398	307	133	-	-

spelt

organic 116

1,210 de

540 wheat

Total Acres 1,429

Organic Acres 175

1,429

301

1,429

1,429

Acres	257	379	343	-	64	200	12	156	-	200	573	21	205		398	-		-							
Yield	180	1800	45	50	50	40	20	180	2200	45	60	50	40	180	2	45	50	50	40						
Price	\$ 3.50	\$ 0.55	\$ 13.00	\$ 6.00	\$ 7.00	\$ 14.00	\$ 30.00	\$ 3.50	\$ 0.55	\$ 13.00	\$ 6.00	\$ 7.00	\$ 14.00	\$ 3.50	\$ 30.00	\$ 13.00	\$ 6.00	\$ 7.00	\$ 14.00						
Gross	\$ 161,910	\$ 375,210	\$ 200,655	\$ -	\$ 22,225	\$ 111,720	\$ 7,200	\$ 98,280	\$ -	\$ 117,000	\$ 206,280	\$ 71,75	\$ 114,520	\$ -	\$ 238,800	\$ -	\$ -	\$ -	\$ -						
Acres	139	379	36	-	64	200	-	36	168	71		21	5	591	398	307	133	-							
Yield	170	2	45	60	400	400		170	1,800	45	400	400	400	170	1,800	45	60	400	400						
Price	\$ 13.00	\$ 300.00	\$ 28.00	\$ 15.00	\$ 1.50	\$ 1.50		\$ 13.00	\$ 0.90	\$ 28.00	\$ 15.00	\$ 1.50	\$ 1.50	\$ 13.00	\$ 0.92	\$ 28.00	\$ 15.00	\$ 1.50	\$ 1.50						
Gross	\$ 307,190	\$ 170,550	\$ 45,360	\$ -	\$ 38,100	\$ 119,700	\$ -	\$ 79,560	\$ 272,160	\$ 89,460	\$ -	\$ 12,300	\$ 3,000	\$ 1,306,110	\$ 659,088	\$ 386,820	\$ 119,700	\$ -	\$ -						

Total Gross \$ 1,550,020

\$ 2,205,845

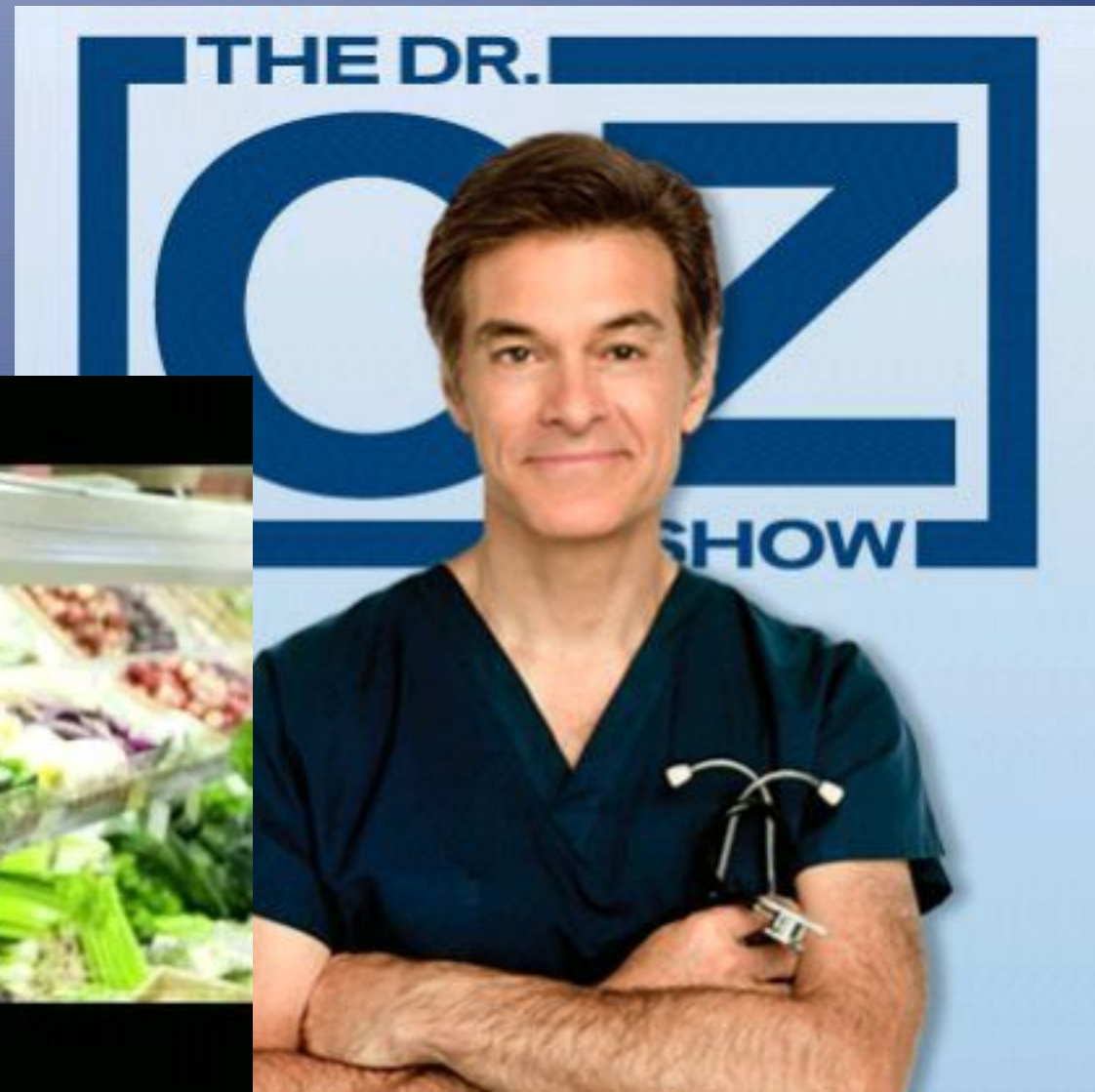
\$ 2,719,519

Soil Health = Human Health?

- In the race to feed the world we have forgotten about Soil Health and it's DIRECT LINK to YOUR HEALTH.

Media Educating our consumers:

- DR OZ
- DR Mercola
- DR Hymen
- DR Huber



Wild Oat Organics
now sold at
Walmart



Chipotle.

MADE WITH
NO-GMO INGREDIENTS

NO
GMO

THE COSTCO CONNECTION

January 2015 • Volume 30 • Number 1

A lifestyle magazine for Costco members

GROWING

Organic

A seedling market
rises to mainstream

36

SPECIAL SECTION
★
FROM START
TO
FITNESS
★
PAGE 41

The Why - \$\$\$



Jerry Maguire

“SHOW ME the
MONEY!”



How to get the \$\$\$\$

Production Costs	Transitional	Organic
------------------	--------------	---------

Double Crop Pea & Black Bean Total	\$ 695	\$ 943
------------------------------------	--------	--------

Return to Land & Mgmt FG Soy	\$ 365	\$ 1,050
------------------------------	--------	----------

Corn Return to Land & Mgmt	\$ 189	\$ 2,251
----------------------------	--------	----------

Wheat Return to Land & Mgmt	\$ 847.33	
-----------------------------	-----------	--

When will you have an 'Ah-ha Moment' ?



The Challenge!

My challenge to you today going forward will be to improve your:

- Ø Family's Health
- Ø Regenerate your Soil's biology & Nutrient Balance
- Ø Profitability \$\$\$\$ And in turn your Nation's Prosperity.

Please listen with an open mind and note through-out this presentation what existing practices you can change now to be more profitable.



Vibrant Picture of My Dad



Earl Doudlah...
“Out-Standing in
his field.”

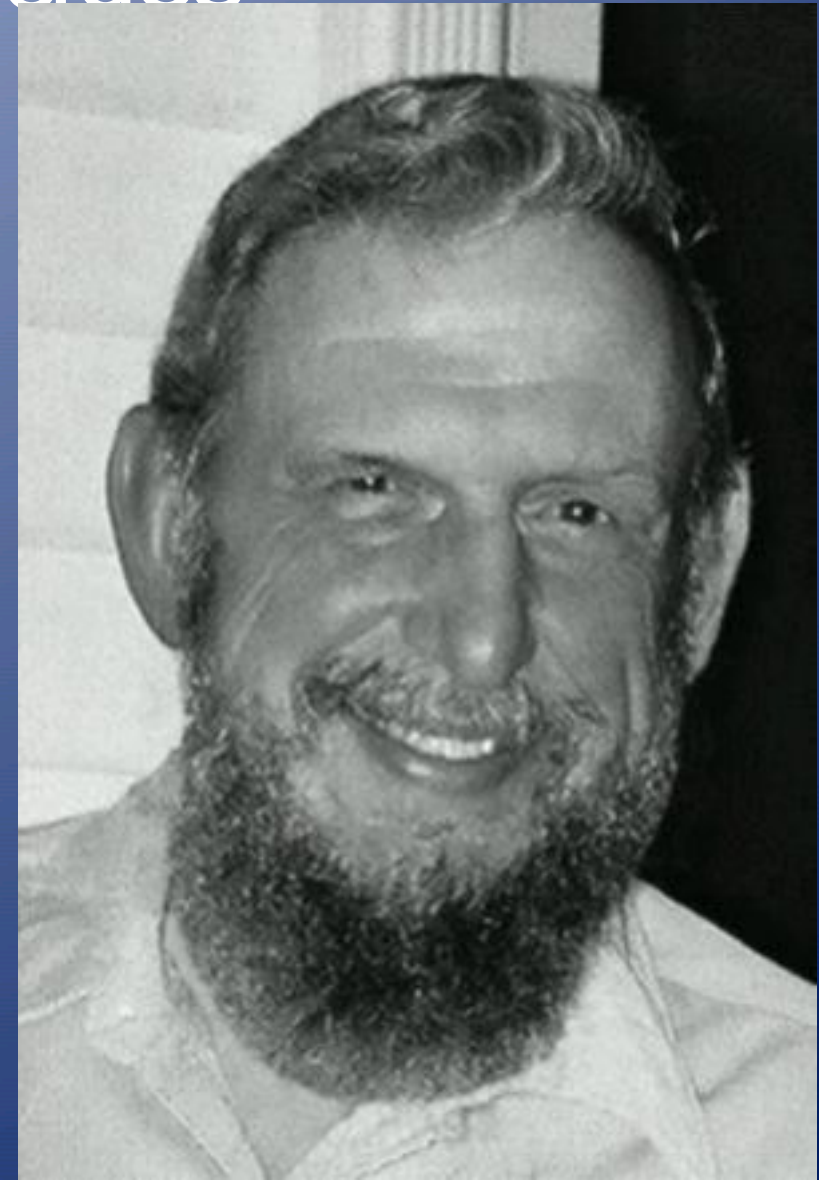


2008 Diagnosis Cancer

- Dad was diagnosed with Mantle-Cell Lymphoma. A Cancer of the Midwest!
- Transition 40 acres to Organics in 2008 in his honor.
- Today 125 acres transitioning to 1429 acres
- Learn in conventional and implement into our organic acres- but organic forces you to be a better biological farmer!

Lymphoma Doctors list of possible causes

- Exposure to Herbicides
- Exposure to Insecticides & Fungicides
- Exposure to Degreasers
- Dad's life was cut short on June 12, 2011.
- He was 73 years young.



My Dad Taught Me to be a Pioneer

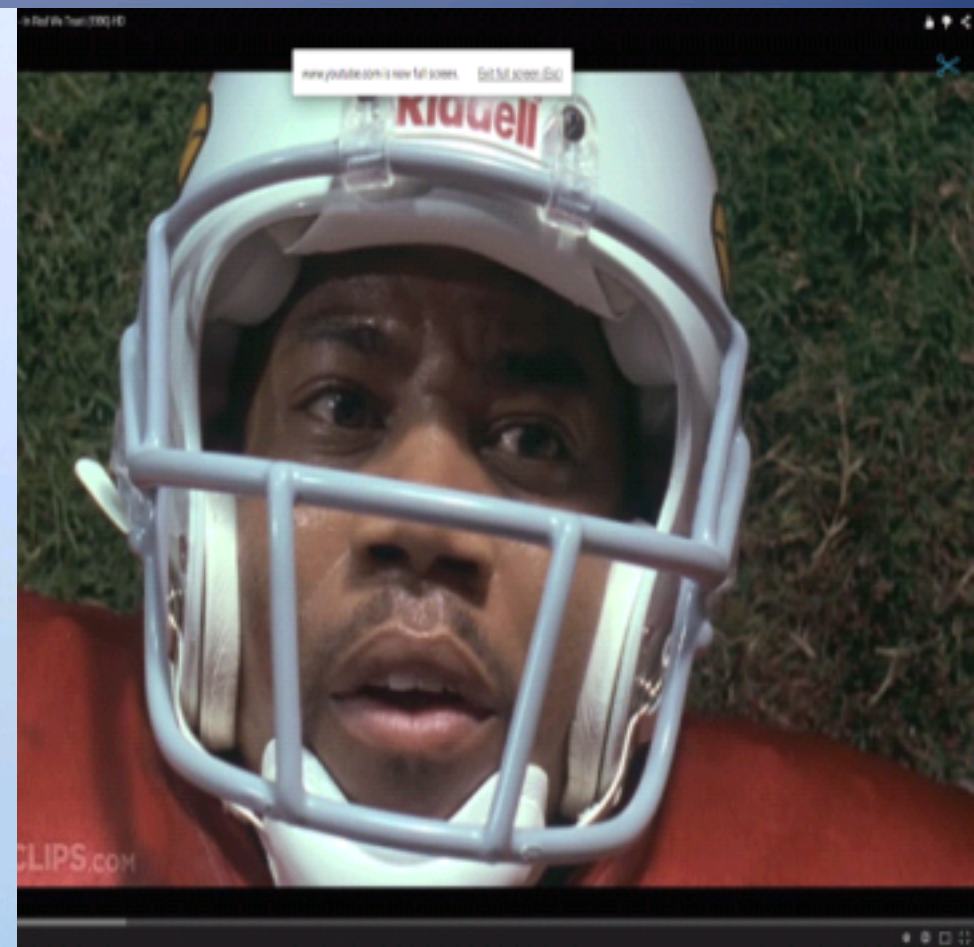
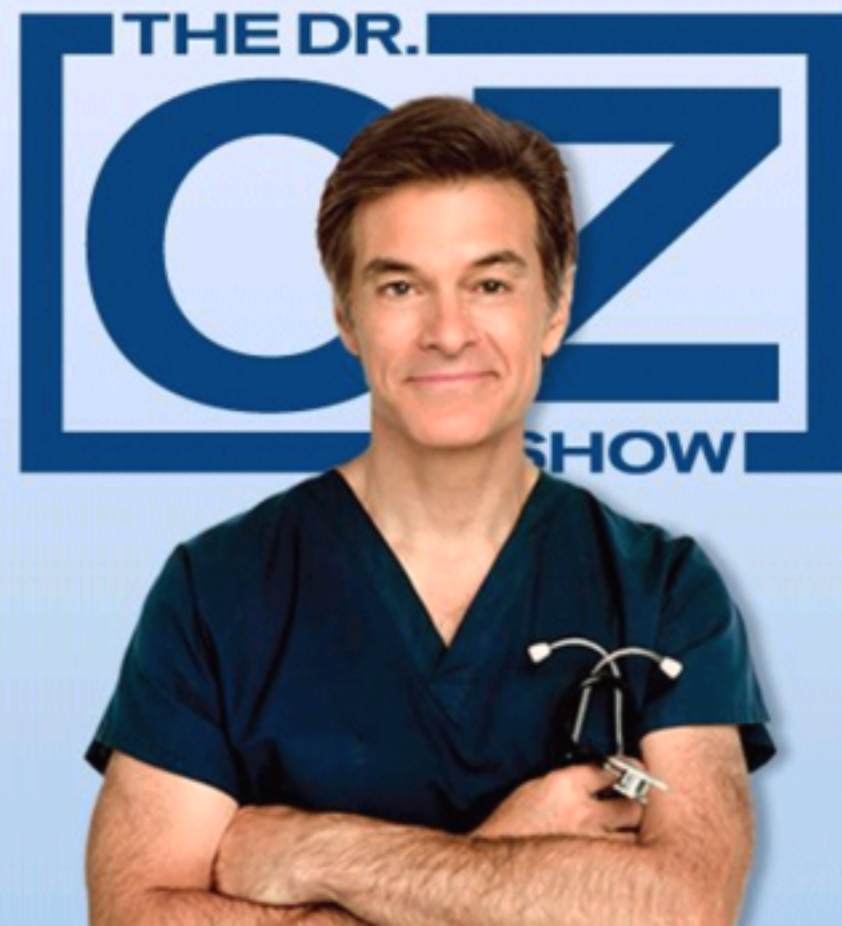
- Early adopter
- **Think outside the box** for different results
- Do what is right – *Don't worry about what people say*
- Never give up- *Make it better*
- You can do anything if you put your mind to it.
- Dad was my ROCK, my mentor



*"A nation
that destroys
its soil
destroys itself."*

-FDR

THANK YOU for listening
to my story of why I'm
ORGANIC!



Dad with Mantle Cell Lymphoma-Blood Cancer



Effect of Residual Soil Glyphosate on Wheat, WI, 4-27-11

(Adjacent fields, same variety, planted same day, same fertilizer)

Organic Field

**Six years of glyphosate burndown use
(preplant application)**

Codon Changes for Genetic Engineering Bt in Corn

[Every highlighted square represents a deliberately altered piece of genetic code]

Cry1Ab gene in MON810

MONSIO

	t	a	t	g	g	a	c	a	c	a	c	c	a	a	c	a	t	c	a	a	g	t	g	c	a	t	c	c	g	t	a	c	a	a	t	l	g	c	c	t	a	g	c	a	c	c	c	l	g	a	g	t	<	g	a	g	t	g	c	l	>	g	g	g	g	t	g	a	g	c	a	t	c	g	a	g	c	c	g	g	t	a	c	a		100						
101	c	c	c	c	a	t	c	g	a	c	a	t	c	t	c	c	t	c	c	c	t	a	c	g	c	a	g	t	c	c	t	g	c	t	a	g	c	g	a	g	t	c	g	t	c	c	t	g	g	c	c	t	c	g	t	g	g	a	c	a	t	c	a	t	c	t	l	g	g	g	g	c	a	t		200																
201	c	t	t	t	g	g	c	c	c	t	c	c	a	g	t	g	g	g	a	c	g	c	c	t	c	c	t	g	g	t	g	c	a	a	a	t	<	g	a	g	c	a	g	t	c	a	t	c	a	c	c	a	g	a	g	g	a	t	c	g	a	g	a	g	t	c	g	c	a	g	g	a	c	c	a	g	g	c	a	t	c	a	g	c	c	g	c	c	t	g		300
301	g	a	g	g	g	c	c	t	<	a	g	c	a	a	c	c	t	c	t	a	c	a	a	a	t	c	t	a	c	g	c	t	g	a	g	a	g	t	i	<	c	g	c	g	a	g	t	g	g	g	a	g	g	a	t	g	c	g	a	t	c	c	a	g	t		400																									
401	t	c	a	a	<	g	a	c	a	t	g	a	c	a	g	c	g	c	c	c	t	g	a	c	<	a	c	g	c	t	c	c	a	c	t	c	t	c	g	c	g	t	c	c	a	g	a	c	t	a	c	a	g	t	c	c	g	c	t	c	t	g	t	a	c	g	t	c	a	g	g	c	g	c	a	a	c	t		500												
501	g	c	a	c	c	t	a	g	c	g	t	g	c	t	g	a	g	g	g	a	c	g	t	c	a	g	c	g	t	g	t	l	g	g	c	a	g	a	g	t	g	g	g	g	c	t	c	g	a	c	g	c	g	c	t	a	a	c	a	g	c	g	t	a	c	a	g	g	c	t	g	a	t		600																	
601	g	g	c	a	a	c	t	a	c	c	g	a	c	g	c	t	g	t	c	g	c	t	g	g	t	a	a	c	a	c	c	t	g	g	c	c	g	g	c	g	g	t	c	l	g	g	g	g	c	c	t	g	a	t	t	c	l	a	g	a	g	a	c	l	g	a	t	l	e	g	c	t	a	a	c	a	c	a	g	t	t	a	g	g	c		700					
701	c	g	g	a	g	c	t	g	a	c	c	t	c	a	c	g	t	c	c	t	g	g	a	c	a	t	l	g	t	g	t	c	c	c	t	c	t	c	c	g	a	c	t	a	c	g	a	c	c	c	a	c	c	t	a	c	c	g	a	t	c	g	c	a	c	g	t	g	t	c	c	c	a	a	c	t	g	a	c	c	g	c	g	a	a	t		800				
801	c	t	a	c	a	c	a	a	c	c	c	g	t	c	c	t	g	g	a	g	a	c	t	t	c	g	a	c	g	g	t	a	g	c	t	t	a	g	g	g	c	a	g	g	g	c	a	g	g	g	c	a	t	c	g	a	g	g	c	t	c	a	c	a	c	c	t	g	a	t	g	g	a	c	a	t	c	c	t	c		900										
901	a	a	c	a	g	a	t	a	c	t	a	t	c																																																																															

BT 11

Cry1Ab gene in Bt-11

[illegible]

Erosion of Pig Stomachs, Intestines with GMO Soybean/Corn Feed, Iowa

Carman, Vlieger, 2011, 2013

Non-GMO Feed



GMO Feed



Normal color

Inflamed, irritated

Is Glyphosate in Our Food?

Wheat desiccated
with Roundup

High fructose GMO corn syrup

GMO soy protein filler

GMO Canola Oil

Cows fed GMO corn and soy

Potatoes desiccated
with herbicides



It's in our rain...:next generation's problem?

New findings released by the U.S. Geological Survey show the presence of pesticides and herbicides—notably Monsanto's pervasive glyphosate-based Roundup—as well as its degradation byproducts and trace amounts of antibiotics routinely fed to livestock in watersheds and rainwater samples throughout the Mississippi Basin.

Glyphosate in Human Breast Milk

Mom \$ Across America Study - 2014

Glyphosate Concentration (PPB)

Urine		Breast Milk	Drinking Water (MCL)		<u>5 % Increase^x in</u>	
U.S.	Europe		U.S.	Europe	Birth Defects	Mis- carriage
18.8	0.16	76-166	700	0.70	0.028*	0.048**

*PPM, had 0.2 PPM in feed

**PPM, had PPM 1.1 PPM in feed

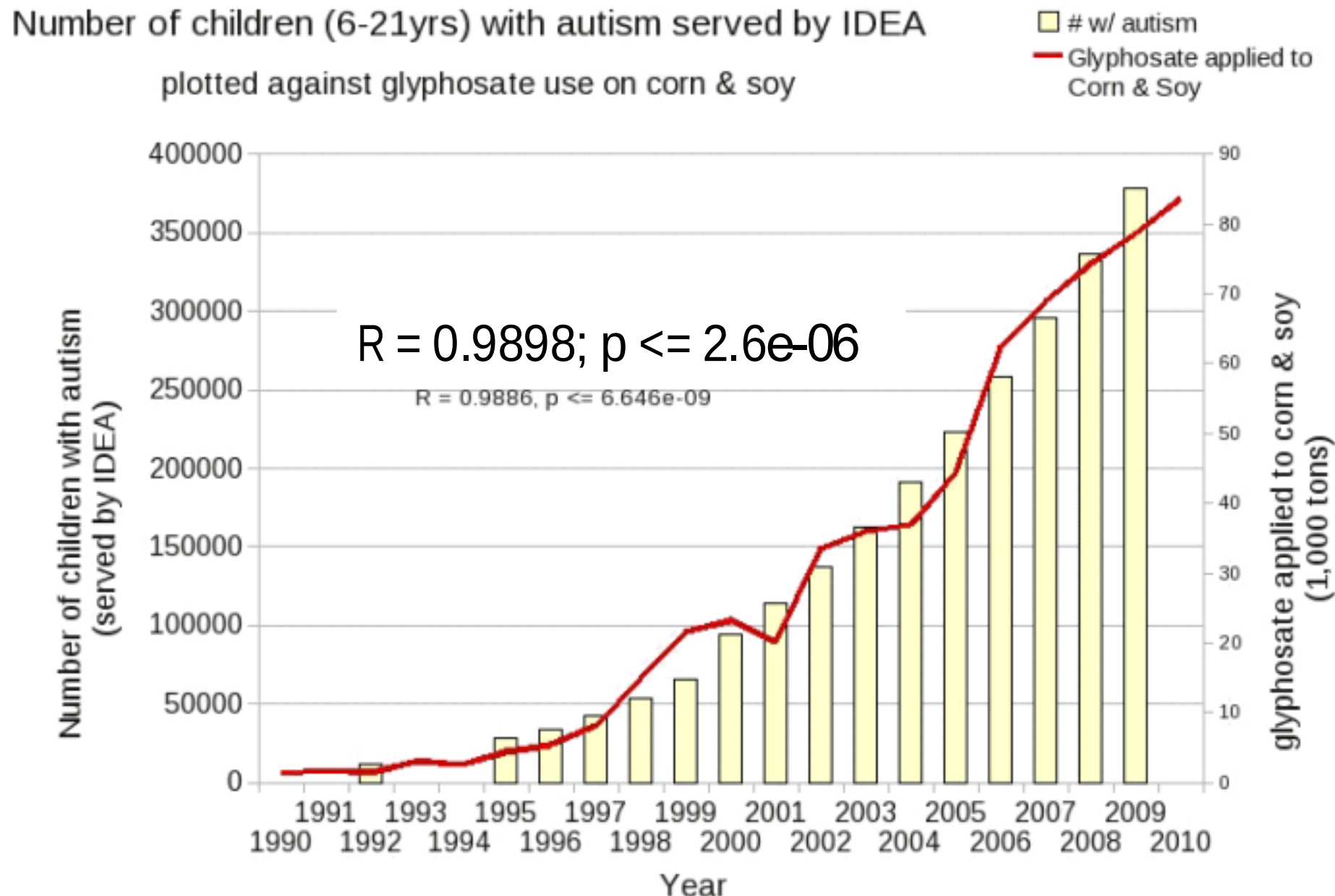
^xPig study

From 10-400 PPM permitted in
food products

0.1 PPM toxic to beneficial GI
microbials



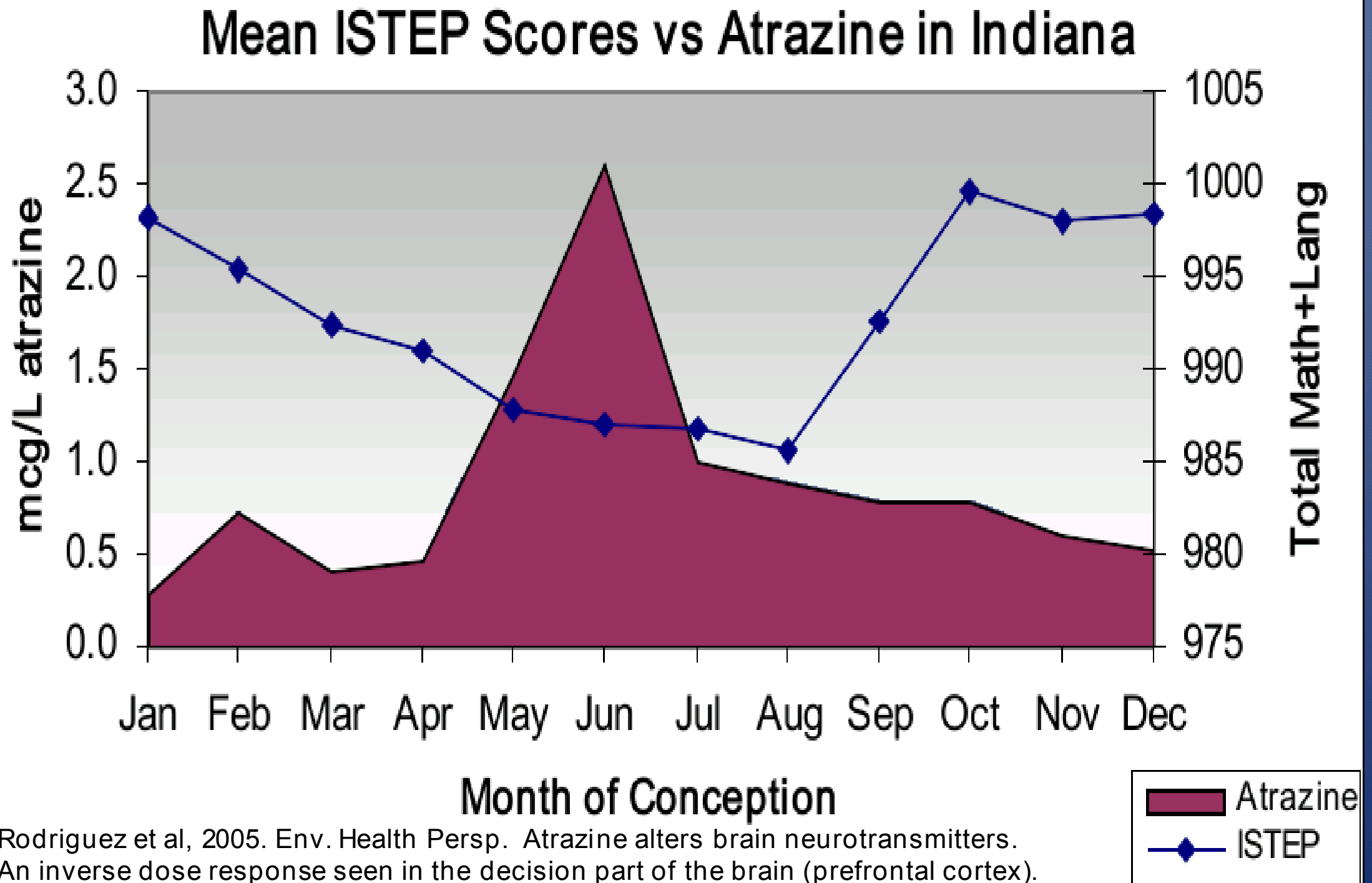
Glyphosate and Autism*



Pearson Correlation Coefficient = 0.99

*Dr. Nancy Swanson, <http://www.examiner.com/article/data-show-correlations-between-increase-neurological-diseases-and-gmos>

Could learning abilities in humans be altered by an herbicide?



Dr. Paul Winchester's data: Director of Neonatology,
St. Francis Hospital & Health Centers, Indianapolis
Clinical Professor, Indiana University School of Medicine

GMOs Failed Promises of Touted Benefits

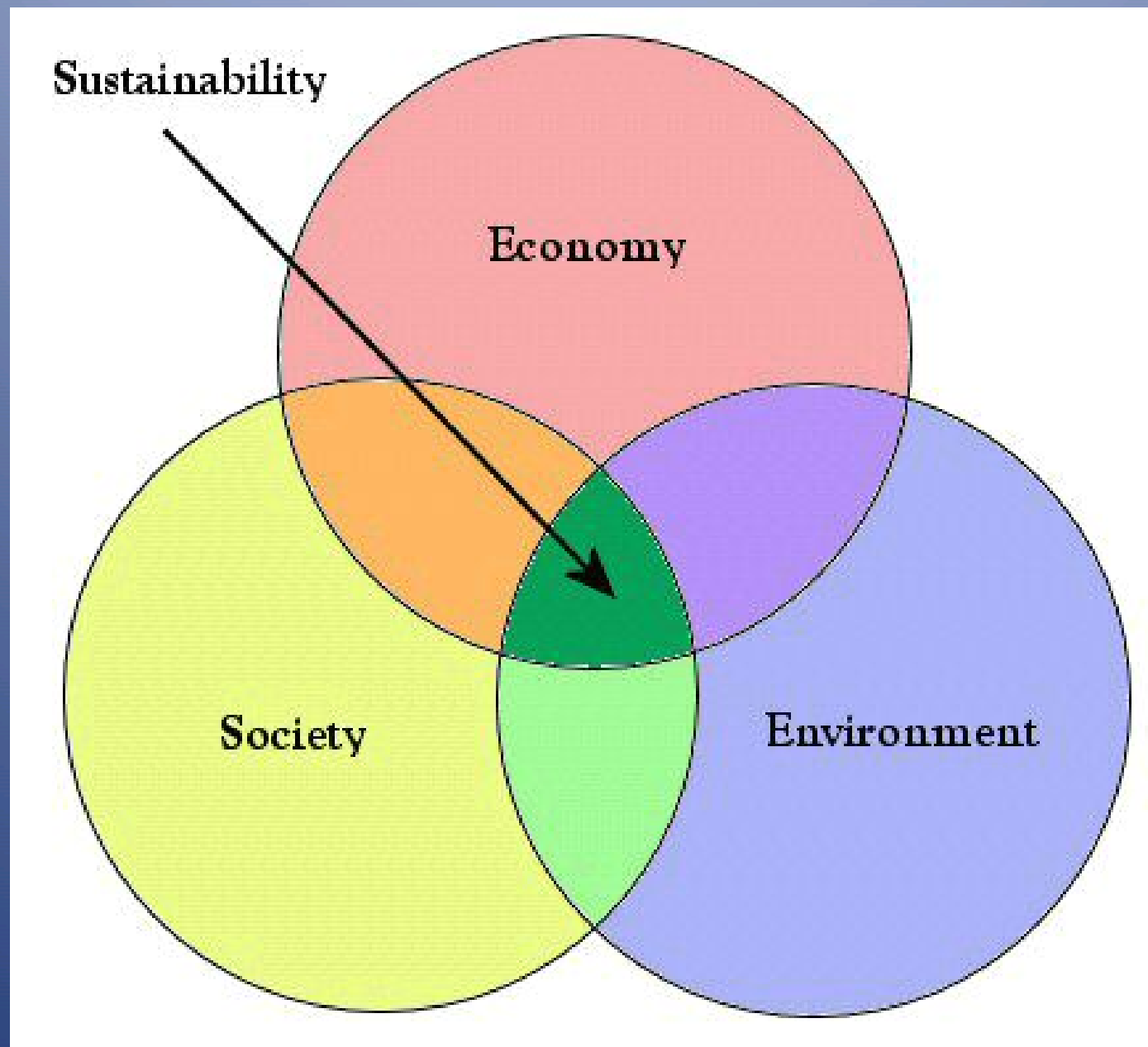
- ü Higher yields
- ü Fewer pesticides
- ü Less post-harvest loss
- ü Improved N-fixation
- ü Drought and salt tolerance
- ü Increased photosynthesis
- ü Greater root growth & function
- ü Disease resistance
- ü Lower risks (economic)
- ü Lower cost
- ü Greater safety
- ü Simpler management –resistant weeds & pests

BETRAYAL OF THE PUBLIC TRUST

Future historians may well look back and write about our time, not about how many pounds of pesticide we did or did not apply; but about how willing we are to **sacrifice our children and jeopardize future generations** with this massive experiment we call genetic engineering that is based on false promises and flawed science, just to benefit the “bottom line” of a commercial enterprise.

Dr. Don M. Huber, Professor Emeritus, Purdue University

Regeneration of Soil Health



Short Term
Quick Fixes

vs.

Long Term
Profits

Health care cost

vs.

Nutrient Dense
Safe Foods

Degrading soil
health &
water quality

vs.

Healthy Soils.