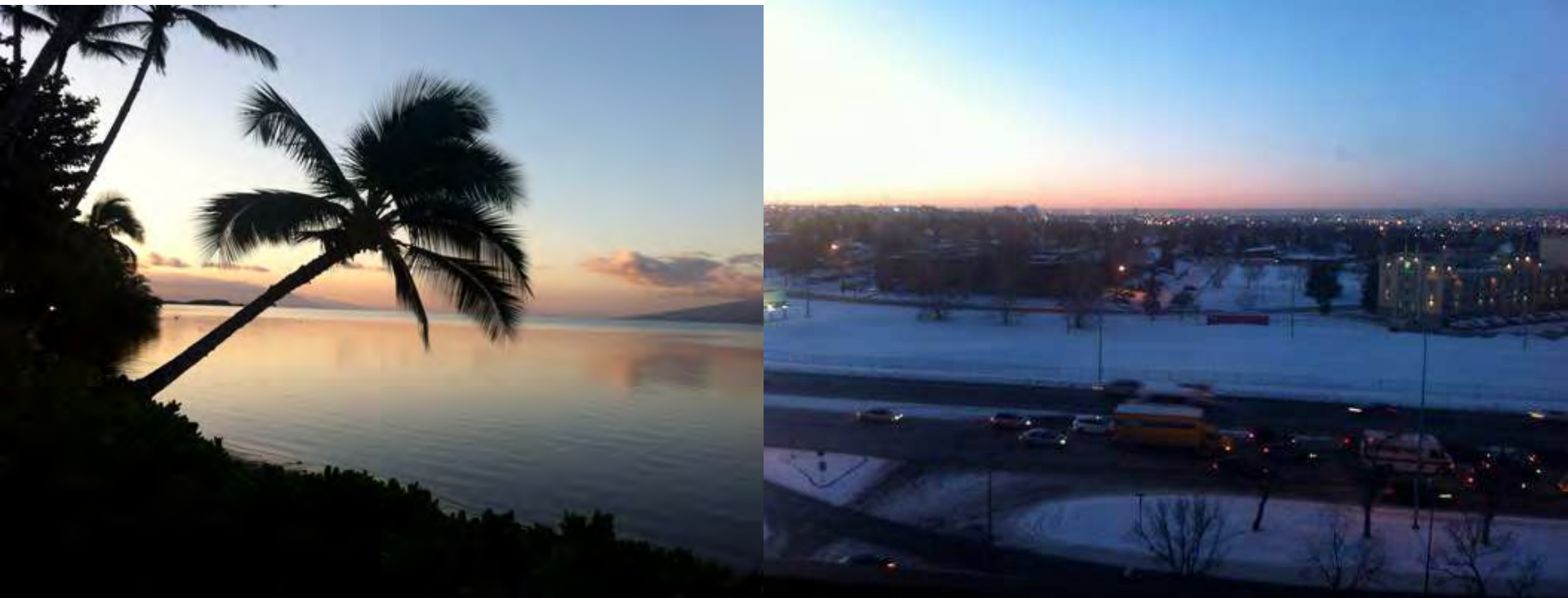


Islands of Angst: Recent Ag Social License Lessons From Hawaii for Alberta

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What can Alberta learn from Hawaii about social license in agriculture?



As I'm sure everyone is aware, there are some differences between Hawaii and Alberta. There are also some similarities.

Historic Hawaiian Agriculture



Pineapple



Sugar Cane

At one time the economies on the Hawaiian islands were agricultural. By the 1980s those plantation crops were no longer competitive and mostly closed down

Kauai Agriculture Today



Kauai Coffee ~5000 acres

Of the 80,000 farmed acres on Kauai, most is now reverting to invasive weeds. One large coffee planting and winter nurseries for global corn seed companies are all that is keeping the 100+ year-old irrigation system going.



Corn Seed Nurseries,
~12,000 acres on Kauai

North Shore Activism



Babes Against Biotech



“Stop Poisoning Paradise”
Campaign

Some of the residents from the North shore (which is non-agricultural) realized that their island was being used to grow dreaded GMO crops and started searching for a way to drive out those companies. One of the activist groups called itself “Babes against Biotech” which probably didn’t hurt for getting attention. Just hating the idea of biotech companies on the island wasn’t moving the needle until the activists discovered a listing of “Restricted Use Pesticide” applications that was available through freedom of information law from the Hawaii Department of Ag. That was exactly what they needed and they started a campaign to “stop poisoning paradise!”.



Earlier “Ag Footprint” Issues



With low organic matter, young, volcanic soils, dust had been a long term issue, but it became a flashpoint and a source of fear about pesticide residues. There was also an incident where mowing of “stink weed” made some school children and teacher sick. This was wrongly blamed on pesticide drift, and that contributed to the mistrust.

Bill 2491



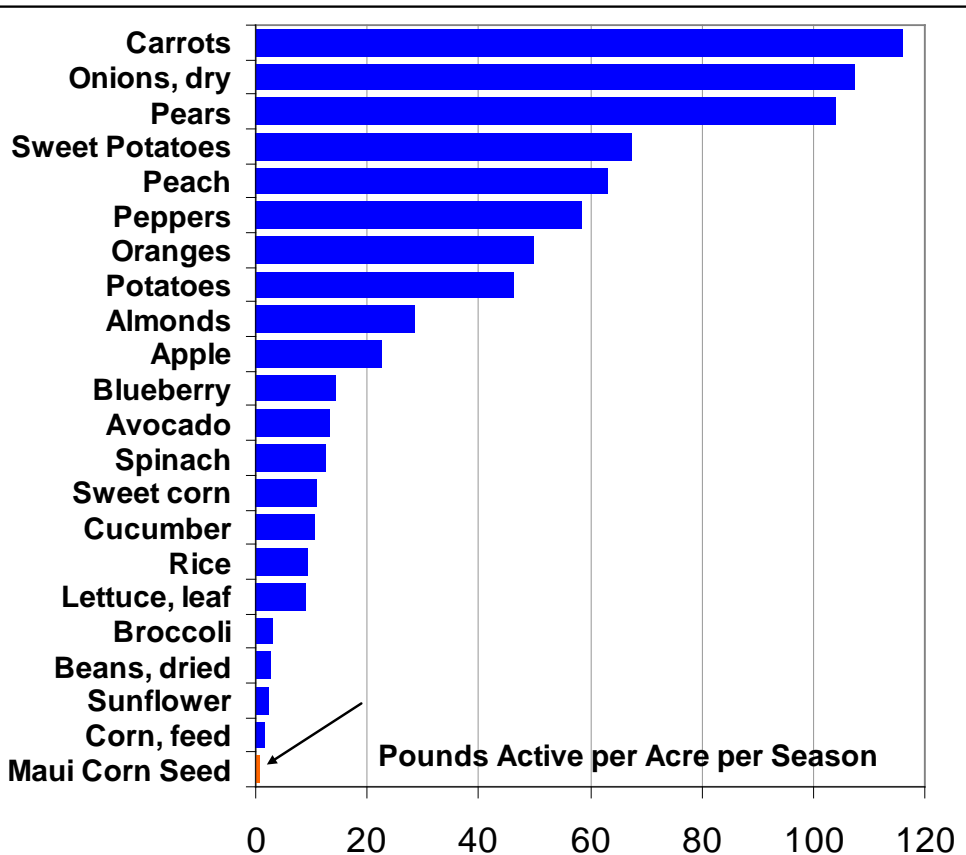
A bill was proposed imposing 500 foot buffers and a 2-year moratorium on GMO crops. Kevin Folta and I were recruited to participate in town meetings and testify at a highly charged council meeting



Kauai Pesticide Use

(What I tried to explain to the public)

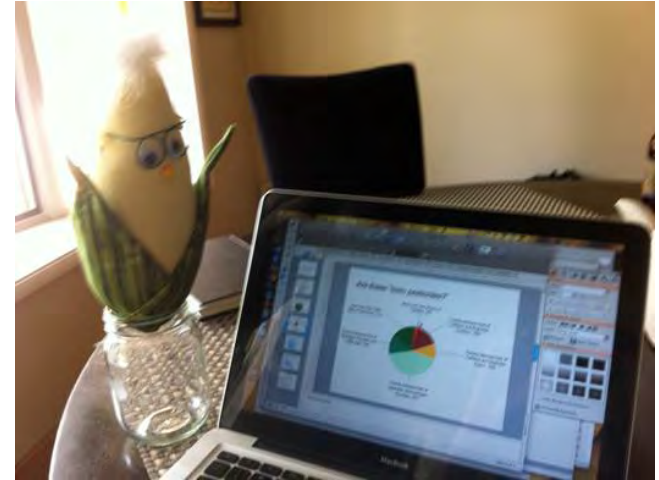
Less than what is needed for most crops



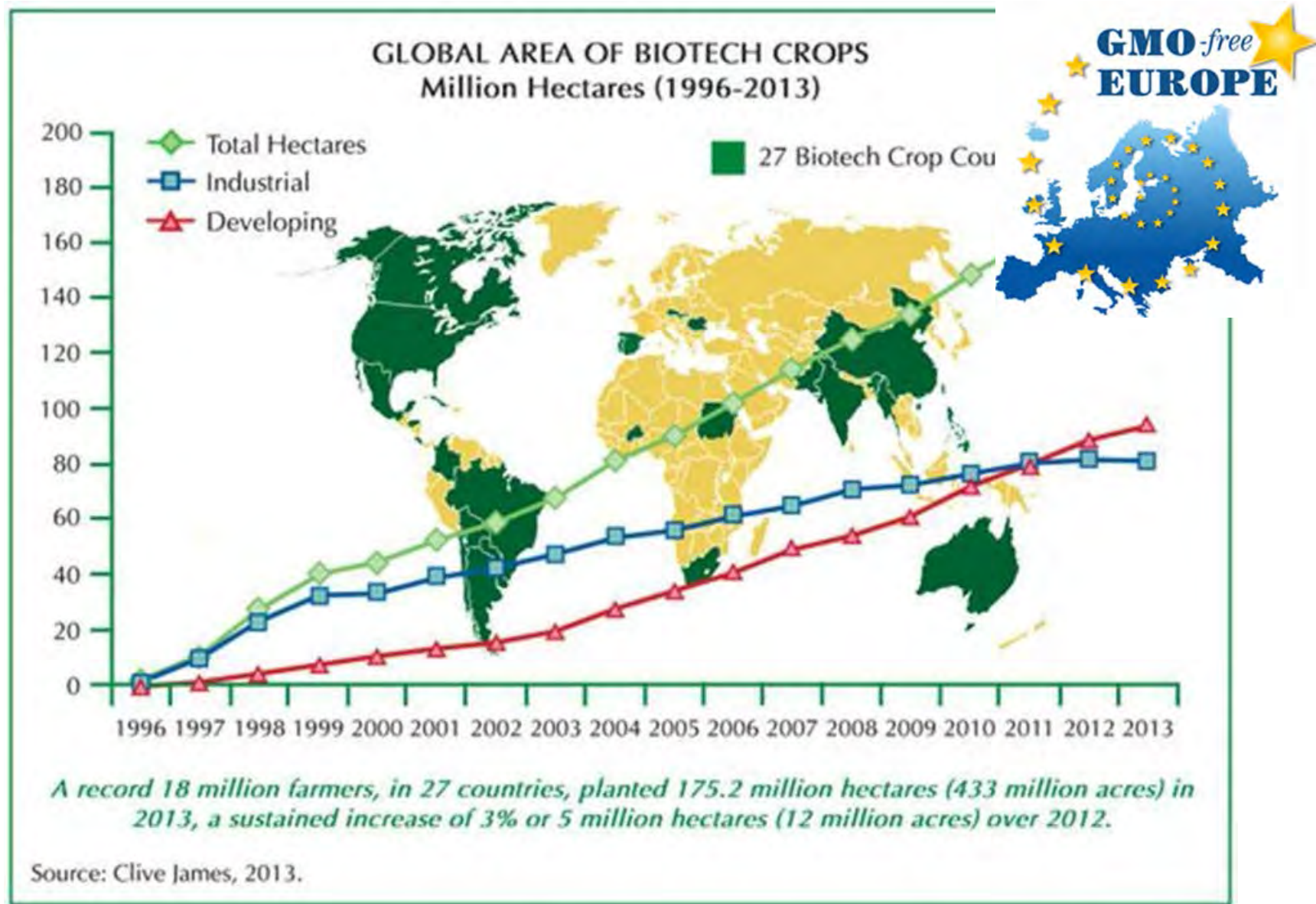
Similar to what is used in the Midwest:
<2lbs/acre/year,
0.00043 lbs/ft²

What Did We Learn?

- People will assume the worst in incidents
- Proactive community interaction is key
- Pesticide perceptions out-dated
- Pesticide/GMO fear-creation synergy
- Regulators held in low esteem
- The ag community has little political clout if trust is undermined



Social License is compromised when
politics trumps science for regulation



European science bodies found no unusual risk issues with GMO crops, but politics trumped science and that bias was projected on former colonies and import sources in Africa

Bees

"You can never tell with bees."

Winnie The Pooh

There is a disturbing trend in which the situation with bees is being dramatically over-simplified leading to bans on neonic seed treatments which will only benefit flea beetles as they did in Europe this past season



Should a neonic ban extend to pets?



Few pet owners realize that they use the neonics, Fipronil or Imidicloprid to protect their pets

More constructive responses have already
been in place

**POLLINATOR
PARTNERSHIP**

Protect their lives. Preserve ours.



Many industries have high leverage players



These players function as a sort of “King of the Jungle” as in the case of McDonalds and Frito-lay in the North American potato market



Bt Potatoes

In 1996, a Bt potato resistant to the Colorado Potato Beetle was commercialized and was very popular with growers.



Activist protest threats sufficiently endangered the brands of McDonalds and Frito that they used their leverage to kill biotech in potatoes. They became more like the sort of lion on the right



The biotech potato story led to suspension of GE work in other brand sensitive crops



Bananas: “long counter-life,”
Sigatoka resistant...



Wine grapes: virus
resistant,
insect/disease
resistant...



Vegetables: herbicide
tolerance, shelf life



Coffee: “never caffeinated,” pest resistant...

Importers Acting Badly



As two biotech wheat traits neared the market around 2000, European and Japanese importers threatened to boycott North American wheat

The Canadian and US wheat growers reluctantly asked Syngenta and Monsanto to halt their programs

Will the next generation of biotech crops be suppressed or allowed?



- Small, grower-driven company
- Consumer-oriented trait
- Apple gene turned off with part of an apple gene
- To be marketed as biotech-improved

Will new potatoes with traits for waste reduction, reduced acrylamide during frying, or resistance to late blight be suppressed or offered to farmers? Will the Florida orange industry be saved by a biotech solution or will it go out of business?



A solution for the Florida citrus industry



INNATE[™]

SUSTAINABILITY ADVANTAGES

DIFFERENCES BETWEEN A CONVENTIONAL POTATO AND SIMPLOT'S INNATE[™] POTATO

40
BILLION LBS

Annual United States' production of potatoes

400
MILLION LBS

Annual U.S. saved waste if all fresh russets were Innate[™] potatoes

CONVENTIONAL



SIMPLOT INNATE[™]



ADDITIONAL SAVINGS

\$\$\$

\$80 million in producer costs



60 million lbs of CO₂ emissions



8.7 billion gallons of water



170,000 acres of pesticide sprayings

Will Sustainability be Sustainable?

Sustainability Metrics – a great idea



- Science-driven
- Outcome-based
- Yield as the denominator
- Cover all the footprints
- Multi-stakeholder input

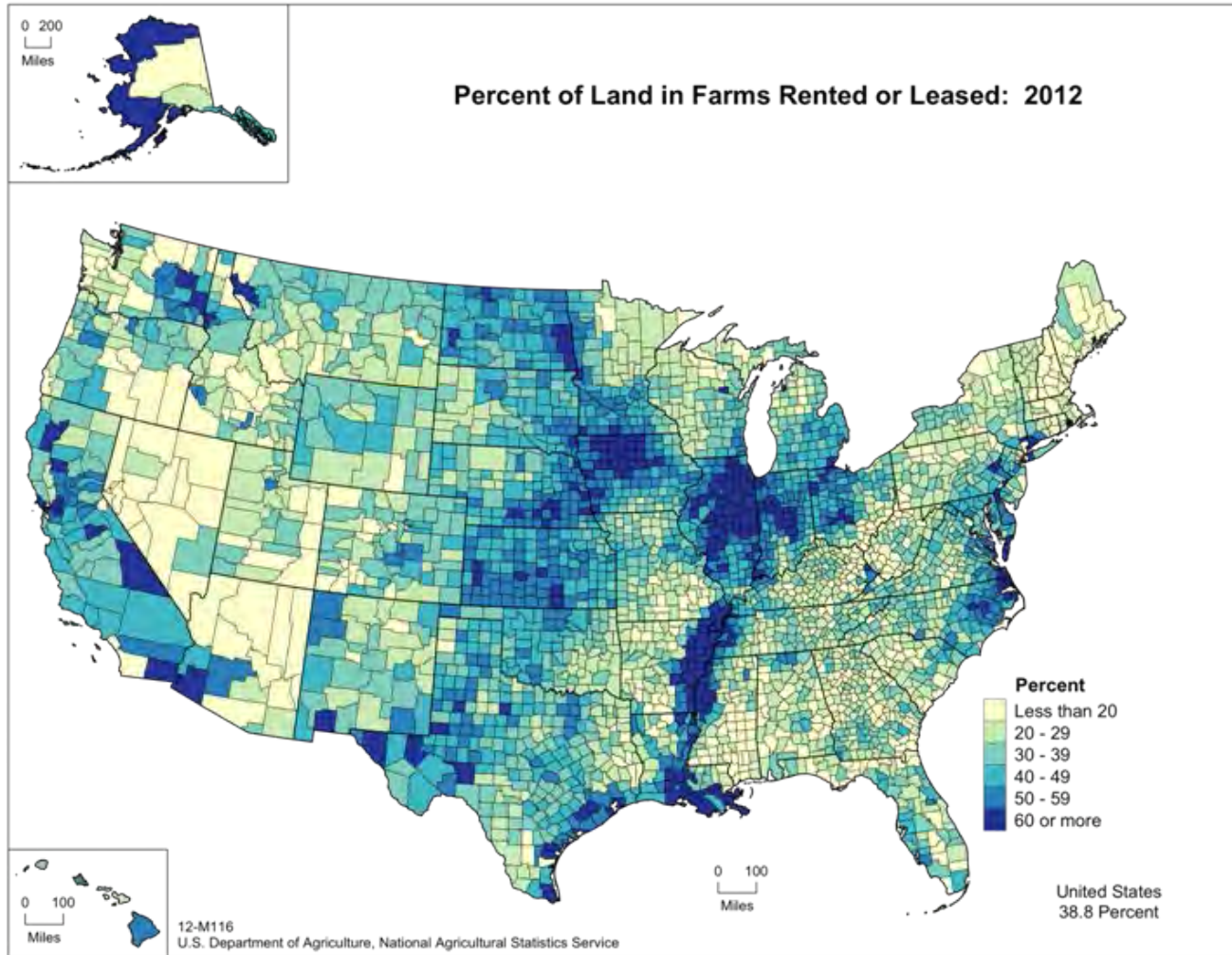


Limitations of Sustainability Initiatives

- Key parameters can be hard to measure (N₂O, soil health...)
- Pesticide risk assessment is complex and already implemented
- Some results are uncomfortable for certain stakeholders
- Water isn't all the same
- Commodity flow complications
- Will this be used as a carrot or as a stick?
- Will there be any consensus system or will the Whole example of going it alone be common?



The Issue Of Land Tenure



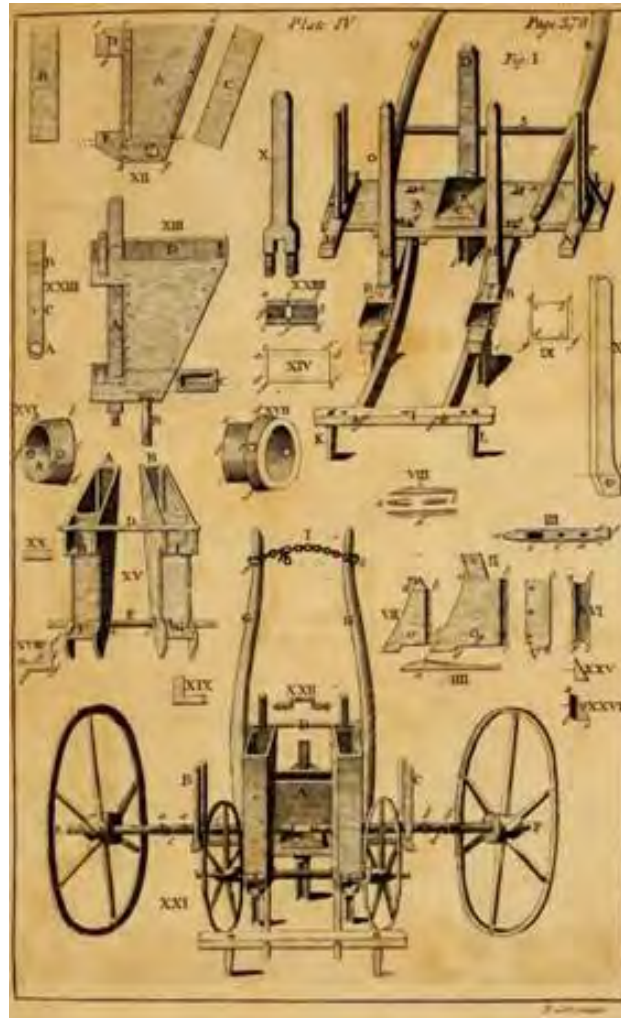
- Minimum tillage
- Cover cropping
- Diverse rotations
- Controlled wheel traffic
- Weed seed-bank depletion...

These sustainable practices can pay for themselves in the medium to long-term, but the prevalence of annual cash rent works against adoption

Modern society feels out of touch with the sources of their food. Blame Jethro Tull!

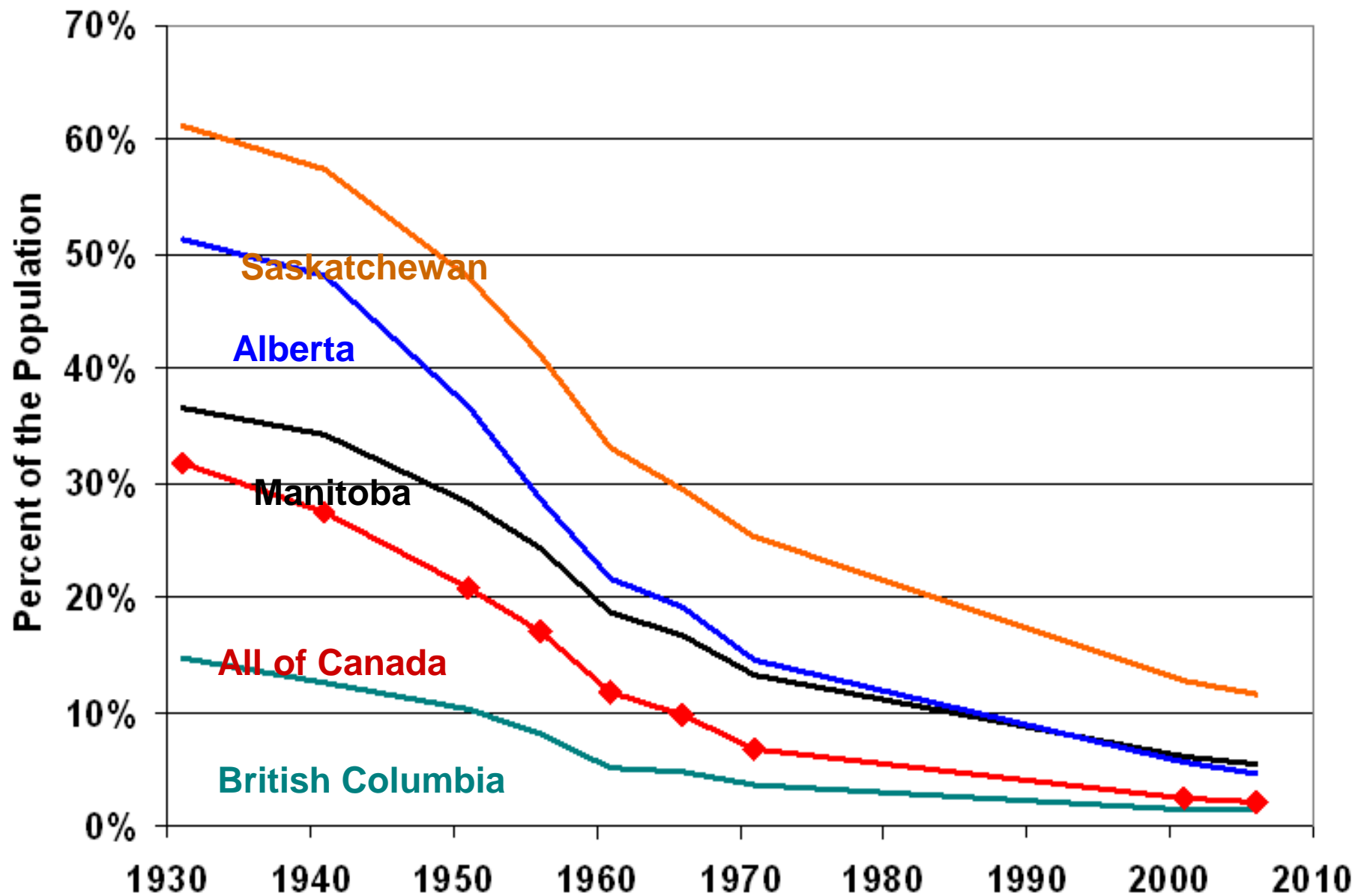


Tull's concept of planting in rows and cultivating weeds between them was the first of many innovations that have taken us from 90+% farmers to a tiny minority today



- Early 18th century agronomist/inventor (seed drill, horse-drawn hoe)
- Put farming on a track towards labor-efficiency

Trends in the Percent of Canadians Who Farm



So, with so few people farming, who is telling the story of agriculture?



Michael Pollan

“Corporate farms
Factory farms
Big Ag
Industrial farming
Chemical-based
farming
Monocultures”



Mark Bittman, NYT



Tom Philpot

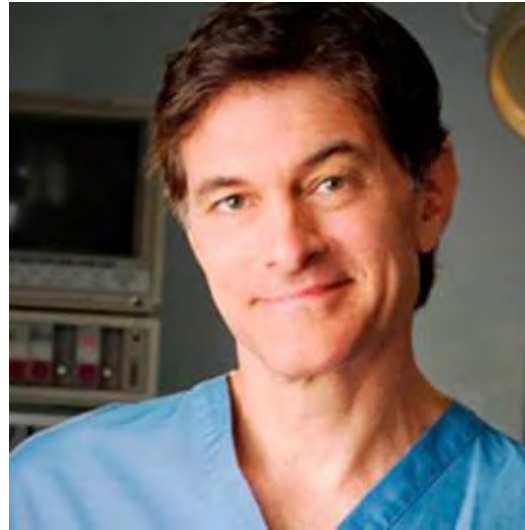


Often people who have
a limited actual
knowledge and who
perpetrate a distorted
view

Other less than helpful “contributors” to the story



Anti-GMO Movement



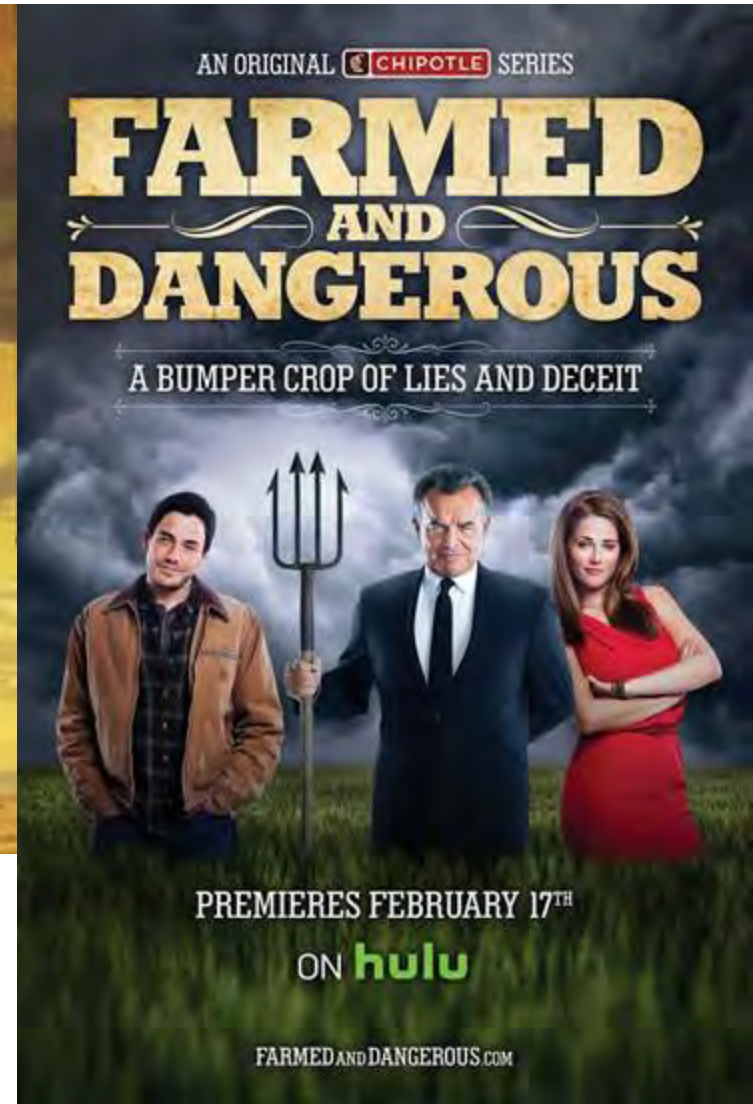
Celebrities



Food Movement

Self Proclaimed Experts

“Entertainment?”



The Chipotle chain has put out “entertainment” items which present a viciously distorted view of farming. Somehow they still claim to provide “Food with integrity”

Fortunately, members of the real farming community are speaking up



Nurse Loves Farmer



Peterson Brothers Farm



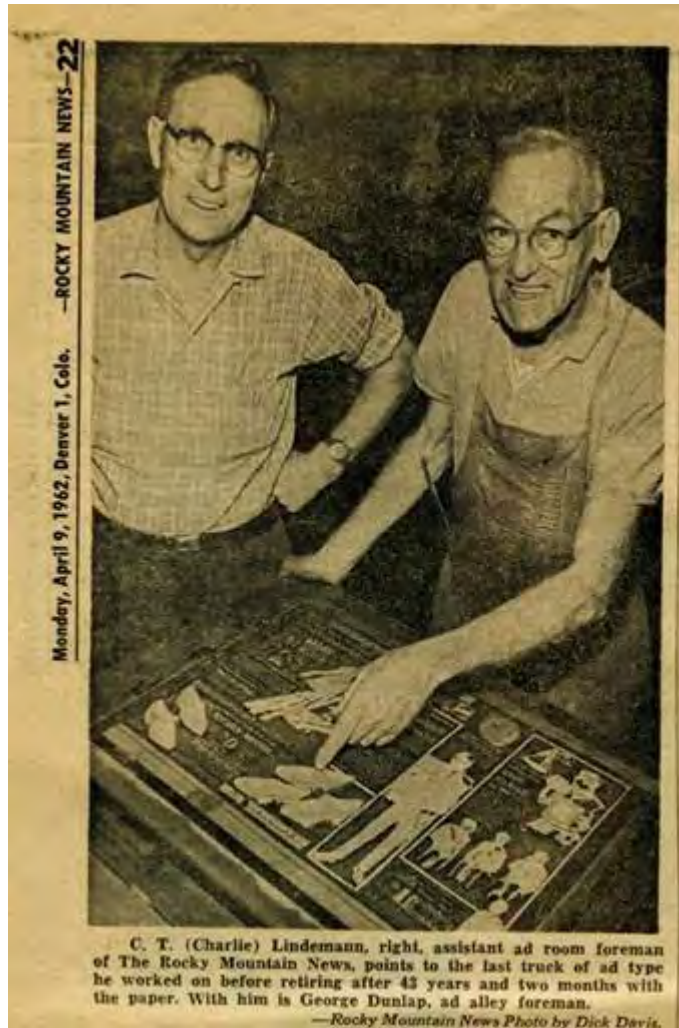
Andrew Campbell
#FARM365

Organic and Social License



Some hard questions

My Grandpa's Organic in the 1950s and my friend's organic in the '70s were defined in the positive



They had a major focus on building soil health

What we have today is “Not My Grandpa’s Organic”



- Defined in the negative
- Lucrative up-sell segment for retail
- Guilting of parents
- Tendency to market and/or promote based on an unfair, negative characterization of “conventional” farming



Organic Branding



The overall “organic brand” is partly driven by marketers, but also by advocacy groups which tend to demonize conventional or to misrepresent the very public residue testing data that demonstrates the safety of our food supply



DIRTY Dozen	CLEAN Fifteen
Apples	Sweet Corn
Strawberries	Onions
Grapes	Pineapples
Celery	Avocado
Peaches	Cabbage
Spinach	Sweet Peas- frozen
Sweet Bell Peppers	Papayas
Nectarines- imported	Mangos
Cucumbers	Asparagus
Potatoes	Eggplant
Cherry Tomatoes	Kiwi
Hot Peppers	Grapefruit
Kale/Collard Greens	Cantaloupe
Summer Squash	Sweet Potatoes
	Mushrooms





Hate Speech For Profit?



Old vs New MacDonald

“In a playful way, our new video turns the spotlight on the true costs of conventional farming and the harm it does to the environment and health”

Gary Hirschberg, Founder of Stoneyfield Farm

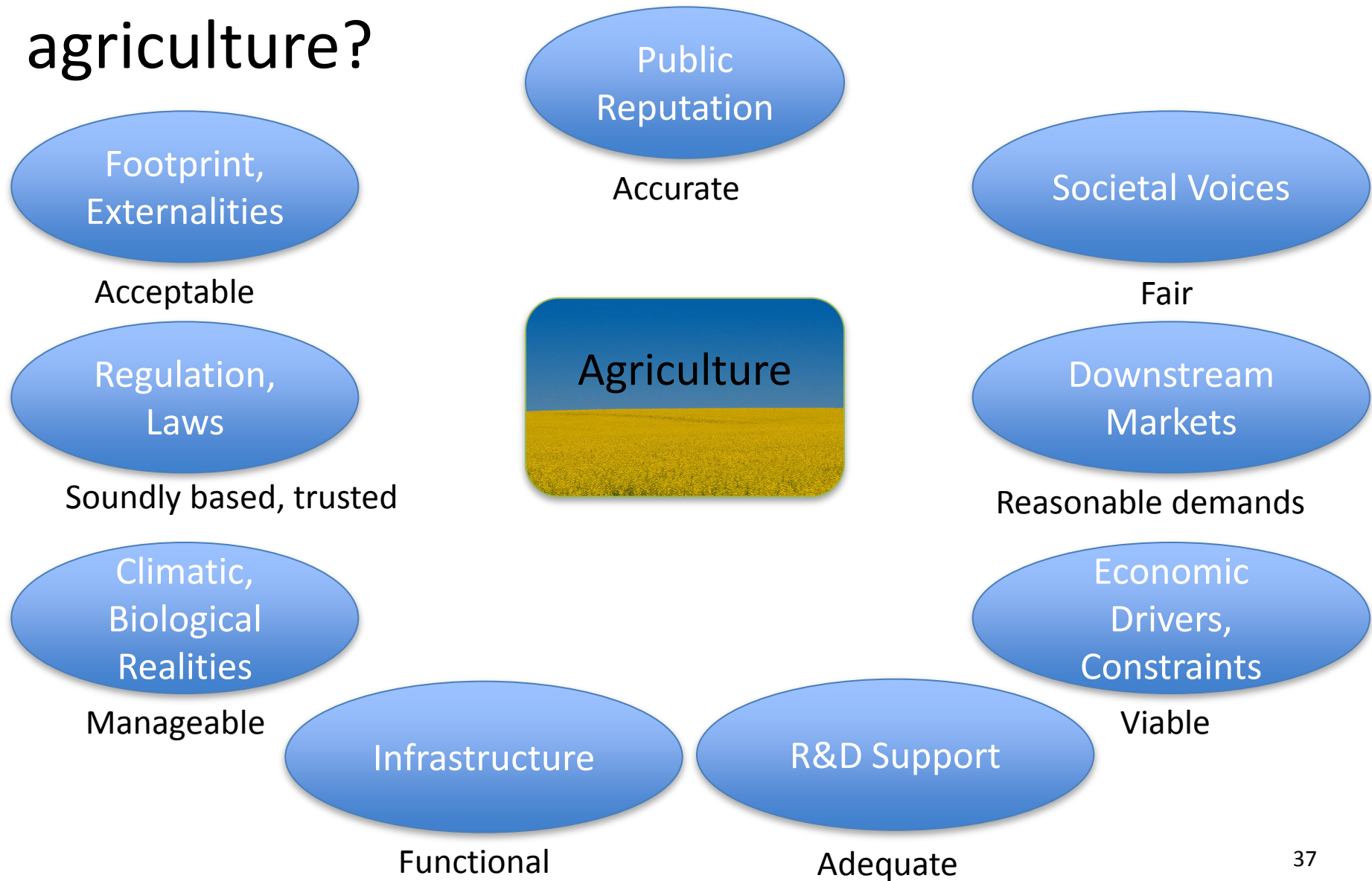


A difficult question about organic



- The promotion and marketing of organic can be toxic to the reputation of agriculture
- Much of the visible supply of organic comes from dual conventional/organic growers
- Is this a case of “feeding the hand that bites you”

What does it take to support a reasonable opportunity and “social license” for agriculture?



Significant Threats to the Social License of Agriculture?

- Erosion of the regulatory environment (distrust, politicizing)
- Leverage of downstream customers can be manipulated by outside forces
- Will Sustainability be balkanized?
- Can the farming community regain control of its story vs hostile and predatory sources?



Thank you!

