NDP Rural Caucus
AGM 2017

Note to readers: the commentary from this presentation is summarized in the notes contained in yellow boxes throughout this PDF. Links to some source materials are also provided.
- Check against delivery -

Surrounded by cartels:
The cost of losing food sovereignty

Ken Larsen

March 25, 2017

Camrose, Alberta

CANADIAN WHEAT BOARD ALLIANCE

WWW.CWBA.CA

Context:

- Prairie farming globalized since 1870s
- Prairie farmers built the largest cooperatively owned grain handling system in world history
- Export ~ 70% over seas
- Market ~ 20% of grain traded in the world
- Our niche market was the high-end global market for quality assured wheat and barley

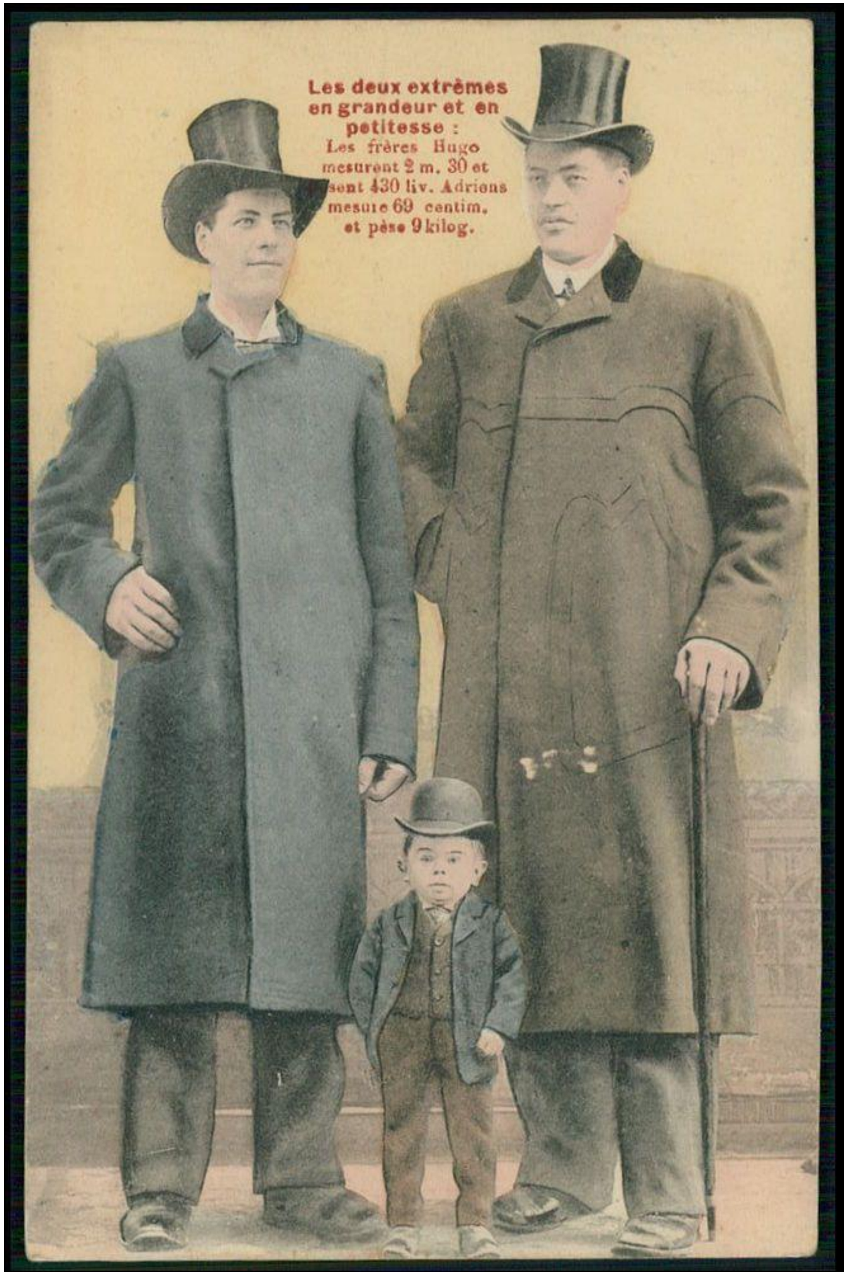
Context - collective prosperity

Made possible by four institutions:

- Prairie Wheat Pools – grain handling
- Canadian Wheat Board – grain marketing
- Canadian Grain Commission – quality assurance
- Public Plant breeding / WGRF – grain genetics

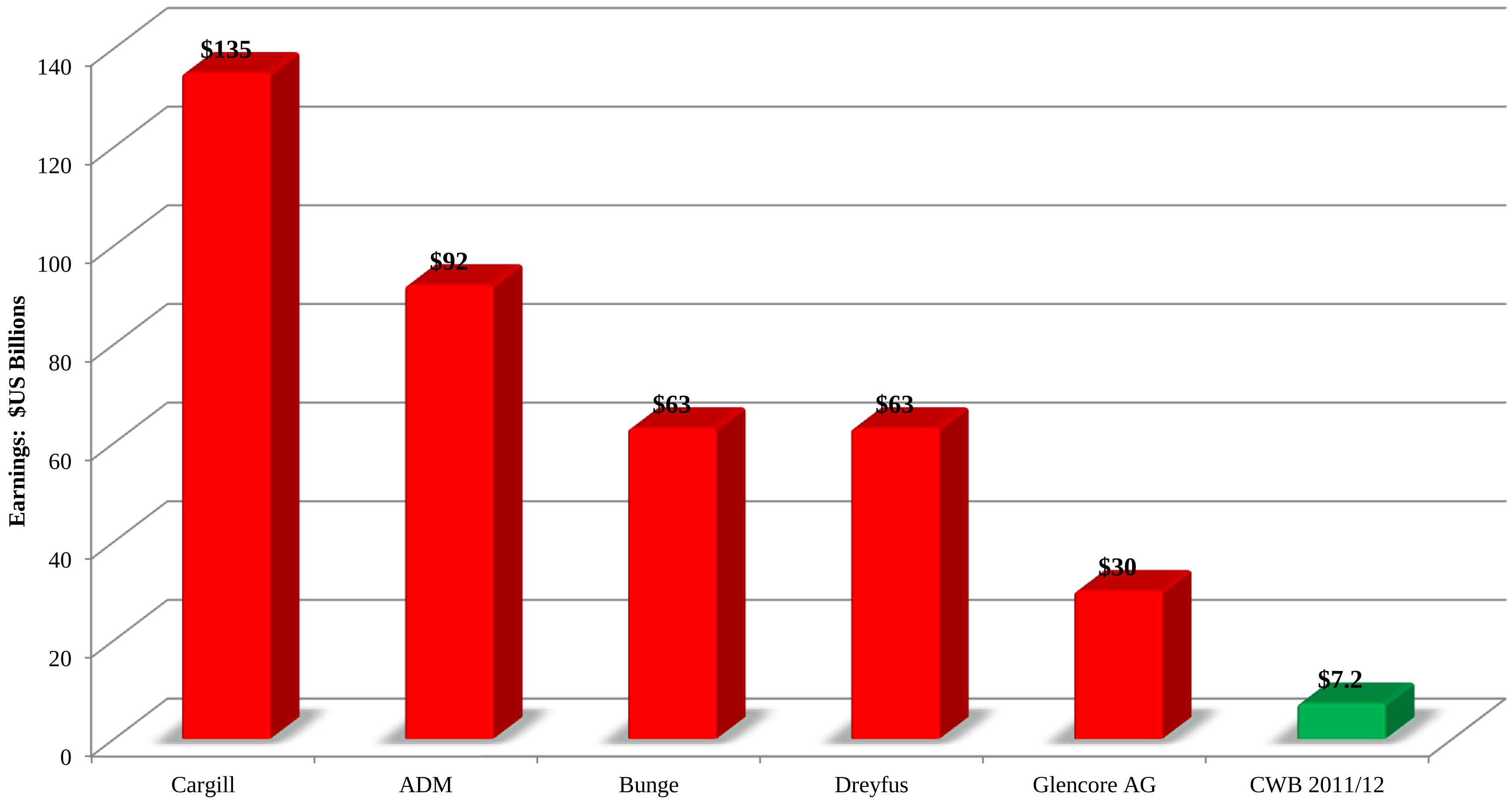
Global context:

Cartels on either side of farmers



OUTPUT: Grain marketing

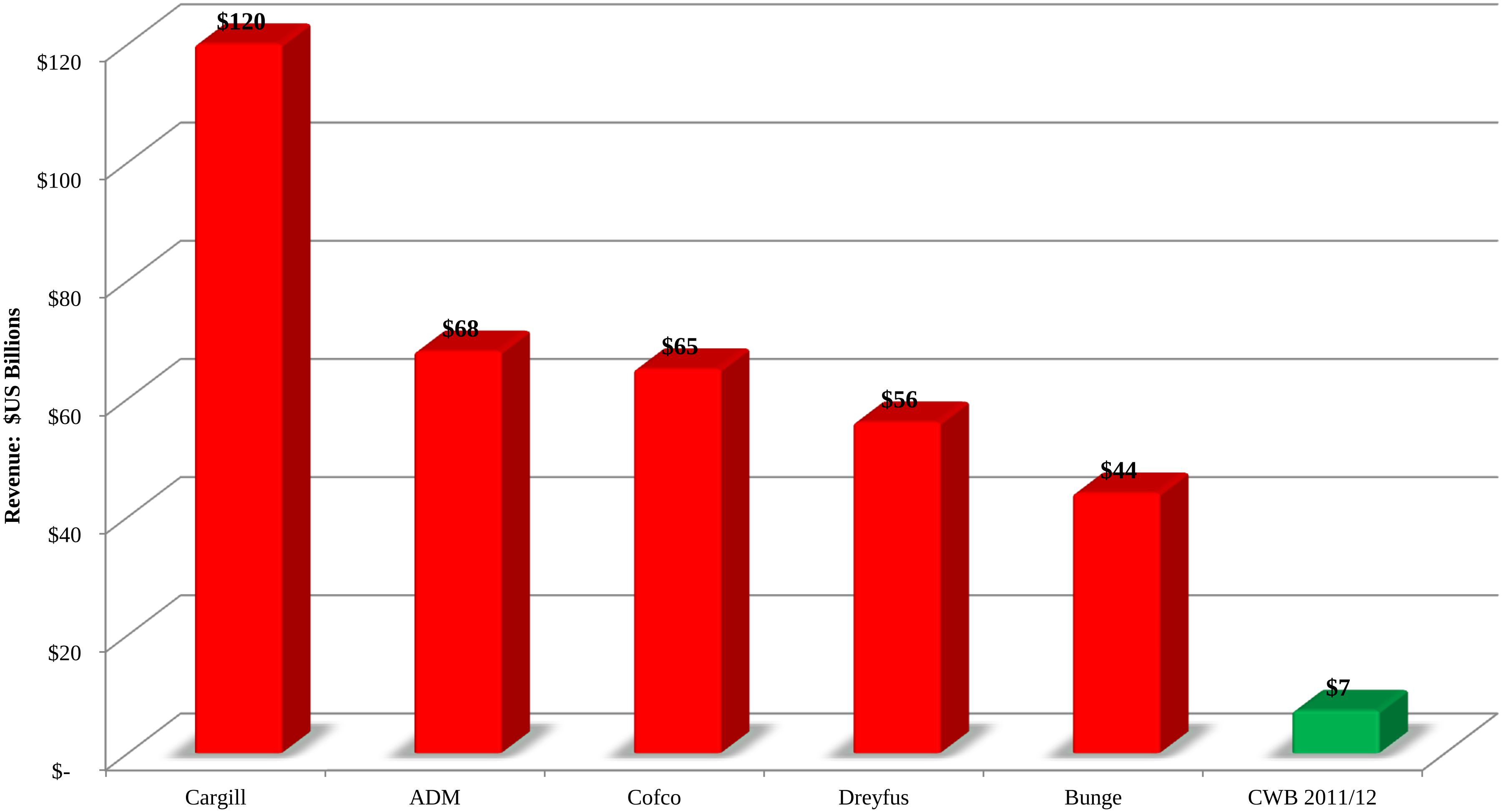
ABCD Group of Ag Companies 2013 vs **CWB**



Note: SALIC (*Saudi Agricultural and Livestock Investment Co.* - Govt of Saudi Arabia) and Bunge Canada are partners in a joint venture known as G3 (Global Grain Group) which received the assets of the CWB. Swiss based Glencore acquired the three Prairie Wheat Pools' grain elevators.

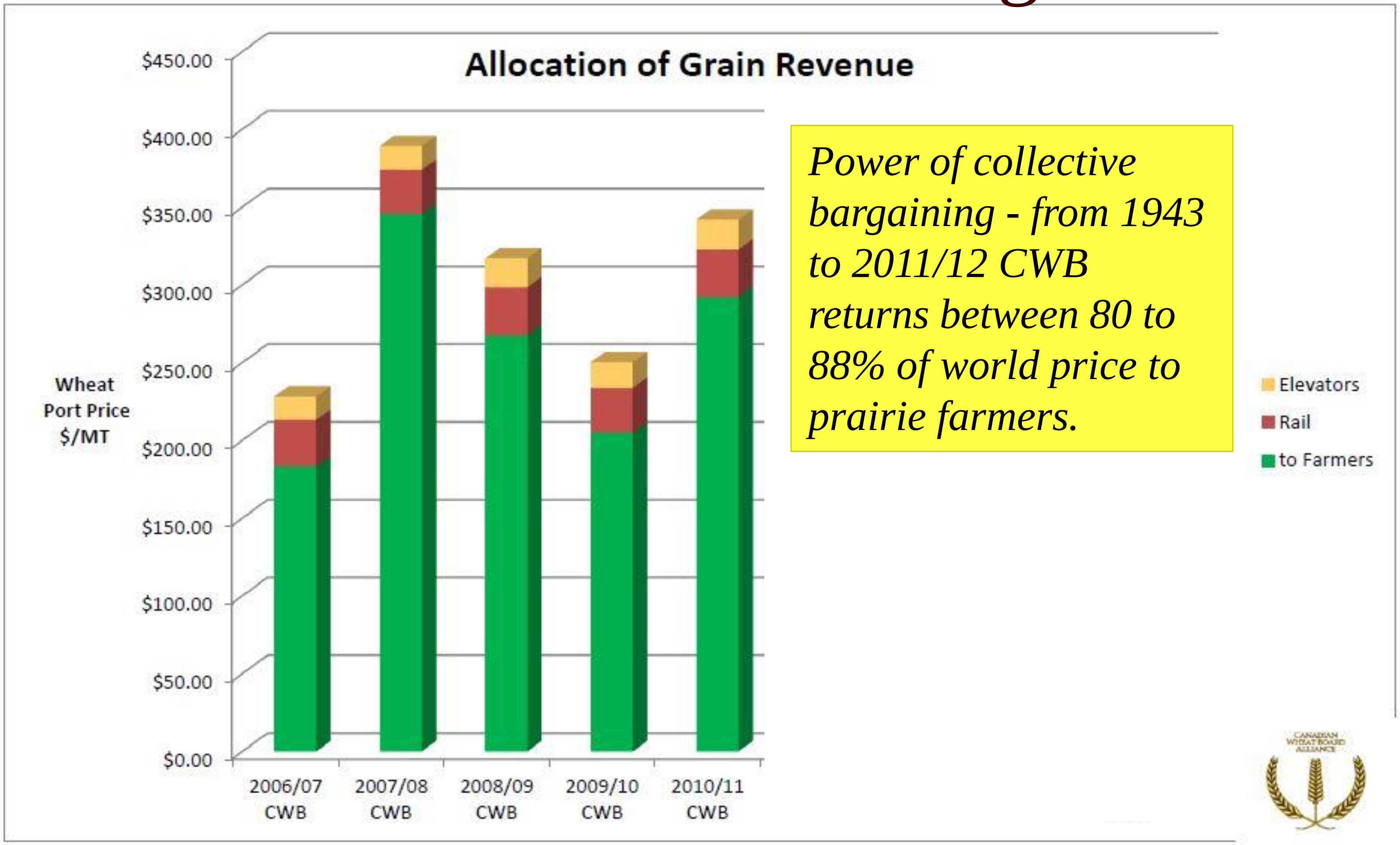
OUTPUT: Grain marketing

ABCD Group of Ag Companies 2015 vs **CWB**



Note: COFCO (*China National Cereals*, *Oils and Foodstuffs Corporation*) has gone from zero to # 3 in just a few years.

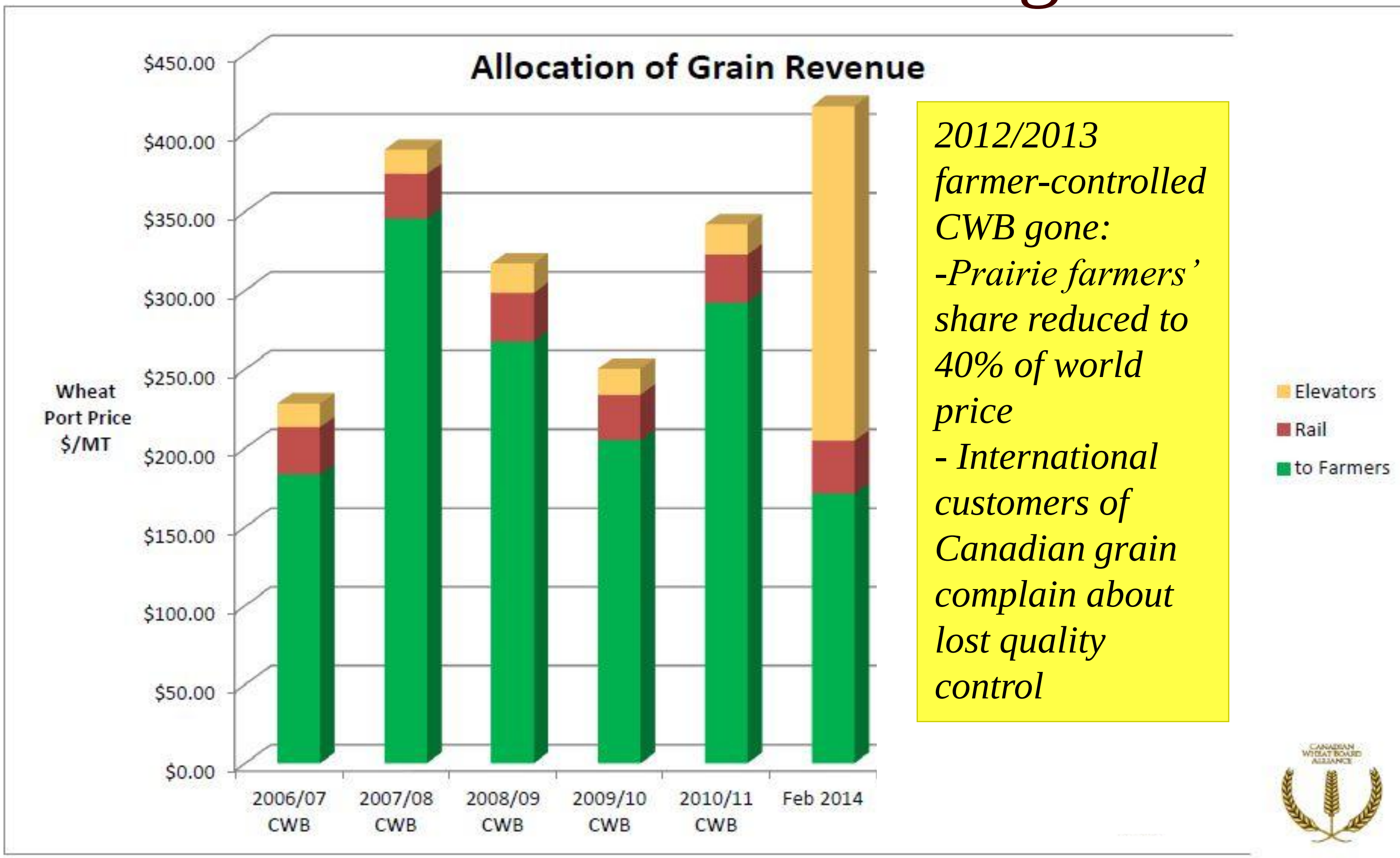
OUTPUT: Grain marketing



Power of collective bargaining - from 1943 to 2011/12 CWB returns between 80 to 88% of world price to prairie farmers.

Sources: CWB Audited Statements, CWB Market Newsletter Feb 2014, Canadian Transportation Agency MRE determinations, Canadian Grain Commission posted elevator tariff rates, Agriculture and AgriFood Canada Weekly port price summaries for # 1 CWRS wheat Vancouver.

OUTPUT: Grain marketing



2012/2013 farmer-controlled CWB gone:
-Prairie farmers' share reduced to 40% of world price
- International customers of Canadian grain complain about lost quality control

Sources: CWB Audited Statements, CWB Market Newsletter Feb 2014, Canadian Transportation Agency MRE determinations, Canadian Grain Commission posted elevator tariff rates, Agriculture and AgriFood Canada Weekly port price summaries for # 1 CWRS wheat Vancouver.

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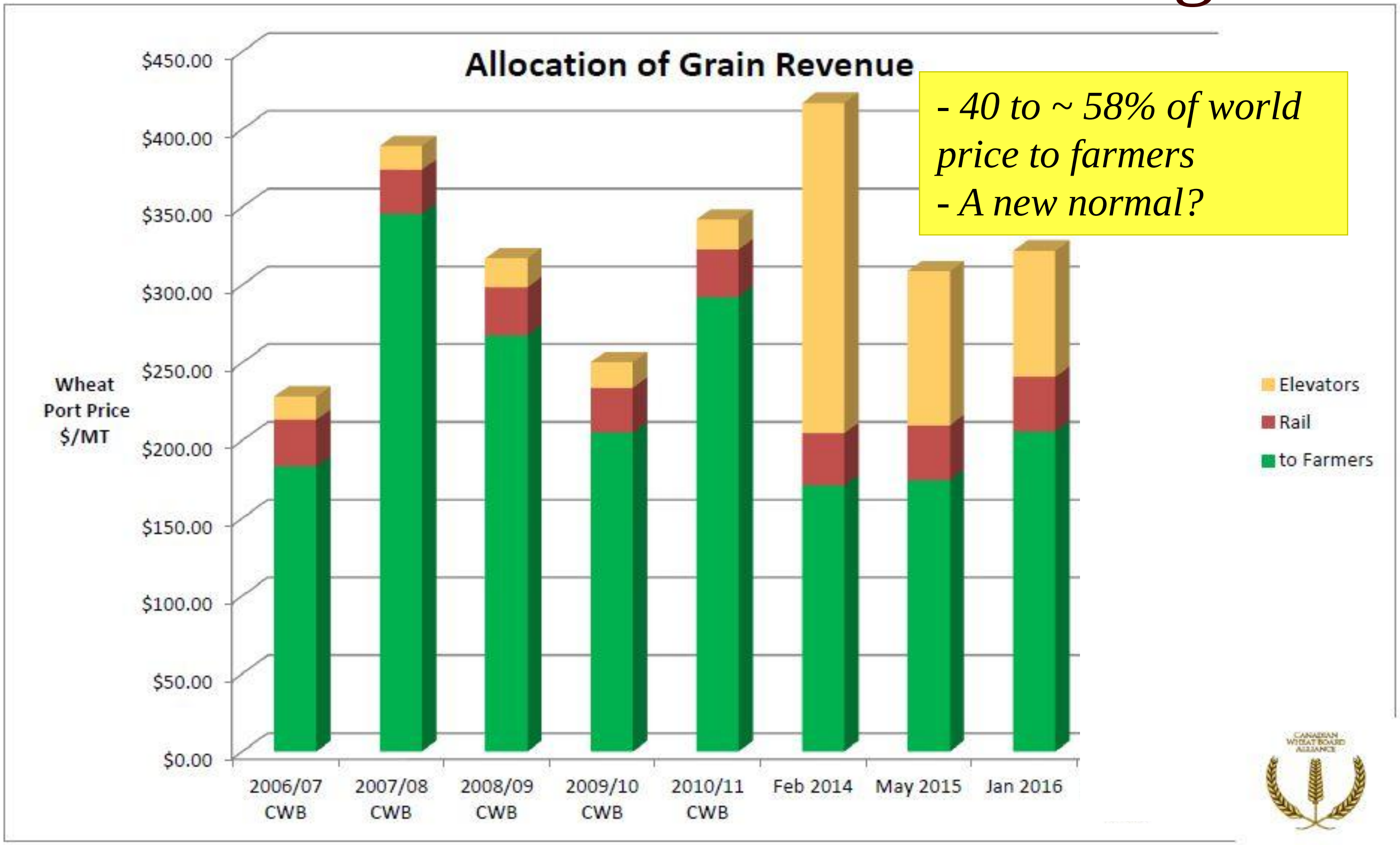

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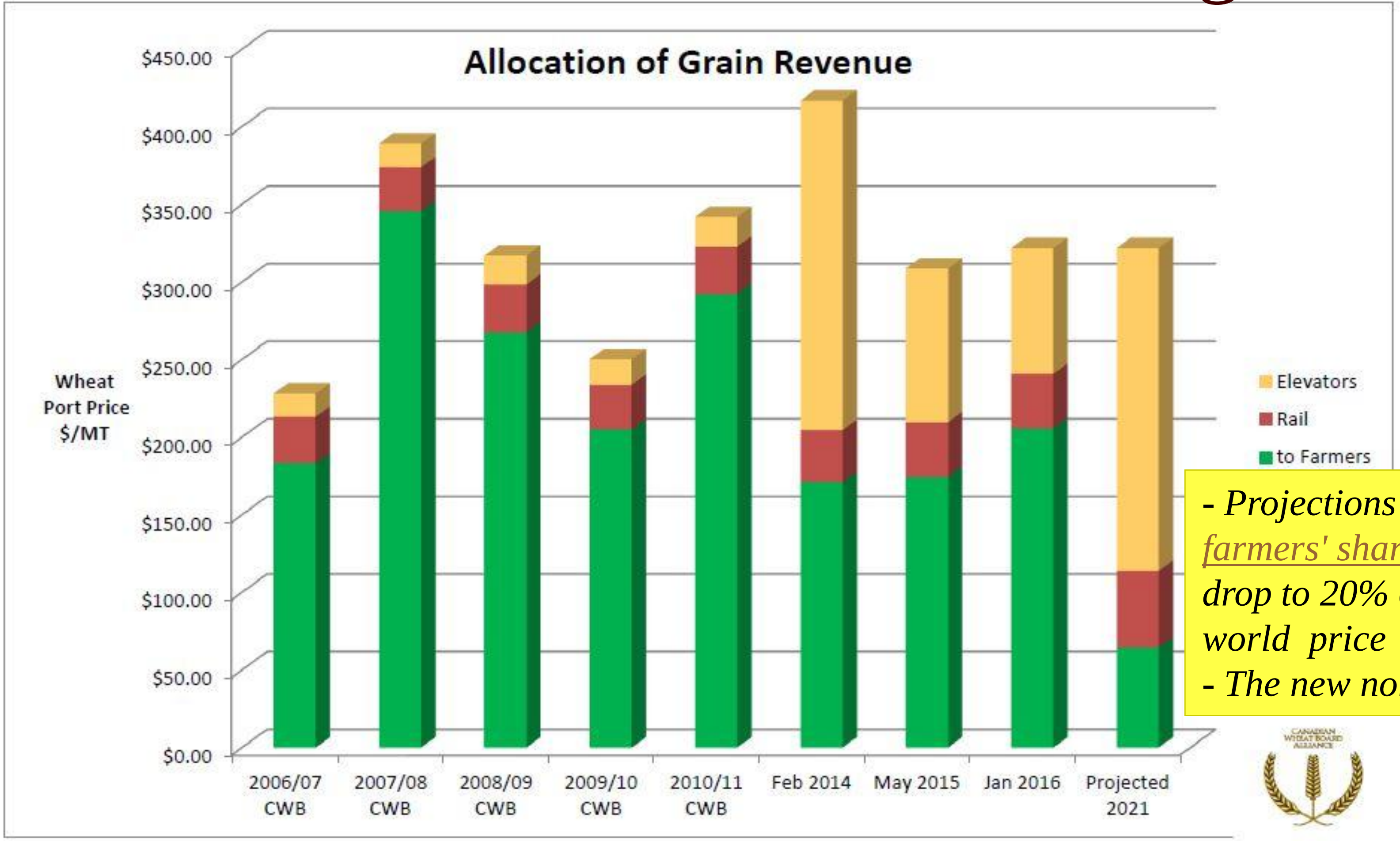


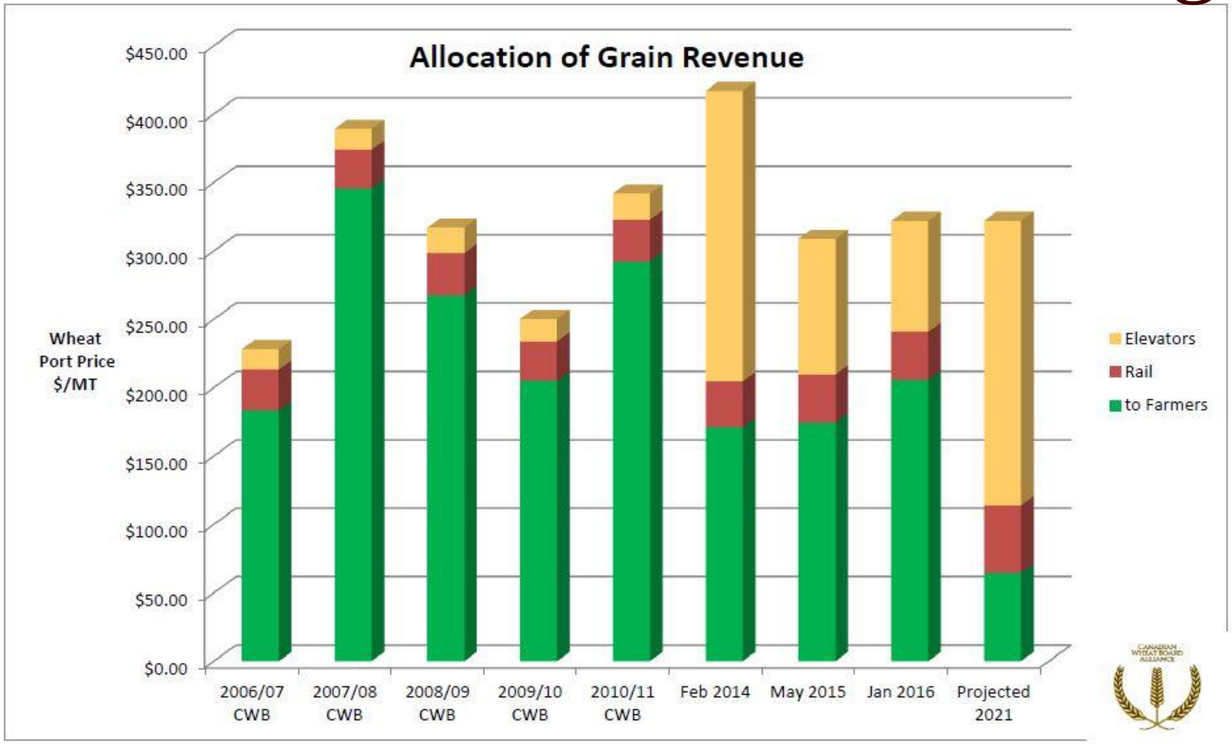
- Projections show farmers' share could drop to 20% of the world price
- The new normal

Sources: CWB Audited Statements, CWB Market Newsletter Feb 2014, Canadian Transportation Agency MRE determinations, Canadian Grain Commission posted elevator tariff rates, Agriculture and AgriFood Canada Weekly port price summaries for # 1 CWRS wheat Vancouver.

2021 projection based on University of Sask. Ag Economist J. Nolan –assumes consolidation of grain handlers - also MRE removed.
http://www.cwbafacts.ca/2016/02/for-your-viewing-pleasure/

- Projection based on TV interview with Dr. Nolan. Rail MRE also adjusted for this presentation

OUTPUT: Grain marketing



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Everybody can understand that having 80 to ~ 90% of the world price with the CWB is better than getting between 40 to ~58%! With more consolidation of grain companies the projected 20% means nuclear winter for prairie grain farmers of all sizes.

INPUTS: Fertilizers

The Corporate Atlas 2017 - Heinrich Boell Foundation, co-published with Oxfam Deutschland, *Le Monde Diplomatique*, and others

INPUTS: Fertilizers

Fertilizer is a bulk commodity sensitive to transportation costs. This merger effectively means a monopoly seller on the prairies

MERGERS AND ACQUISITIONS

FINANCE | BANKS | INVESTING | WALL STREET | HEDGE FUNDS | M&A | INSURANCE

Potash Corp, Agrium to merge to create $36 billion company

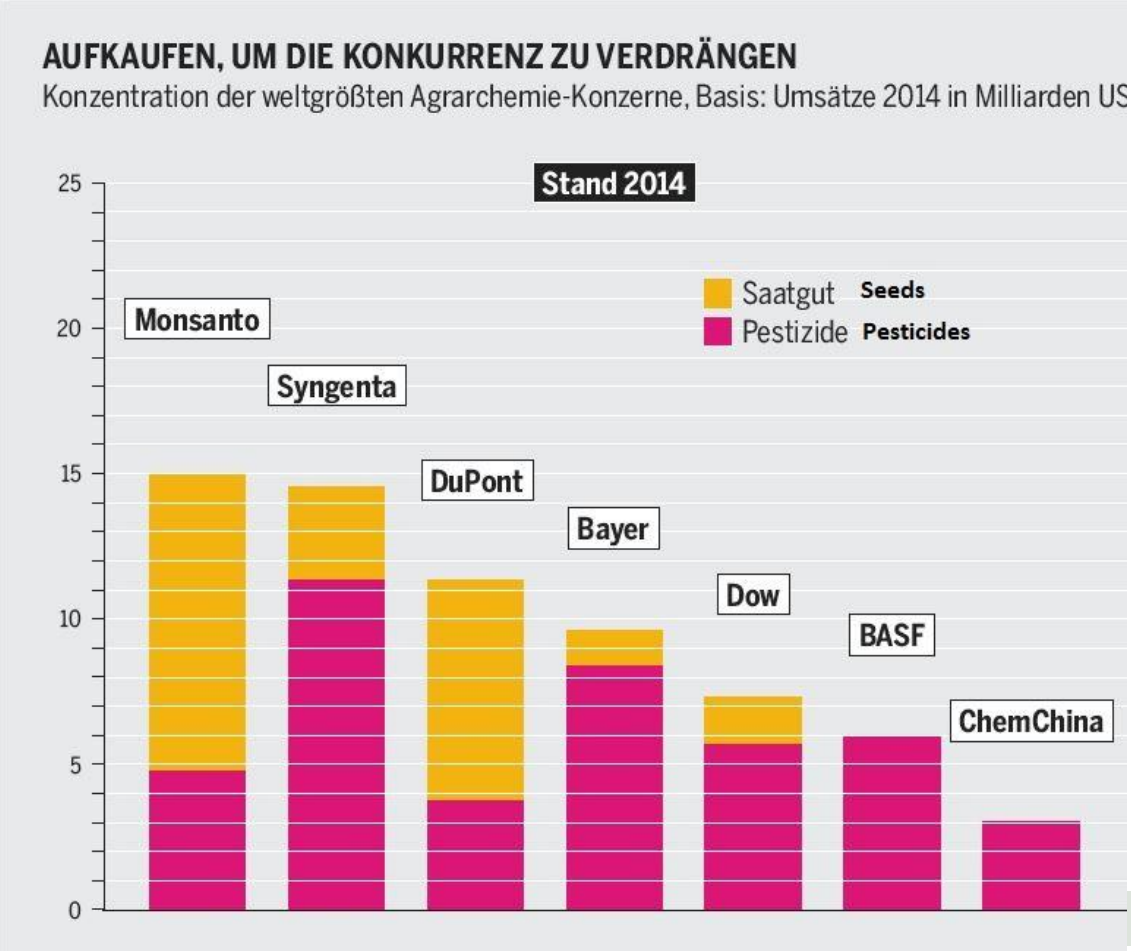
Monday, 12 Sep 2016 | 7:36 AM ET

REUTERS

Geoff Howe | Bloomberg | Getty Images

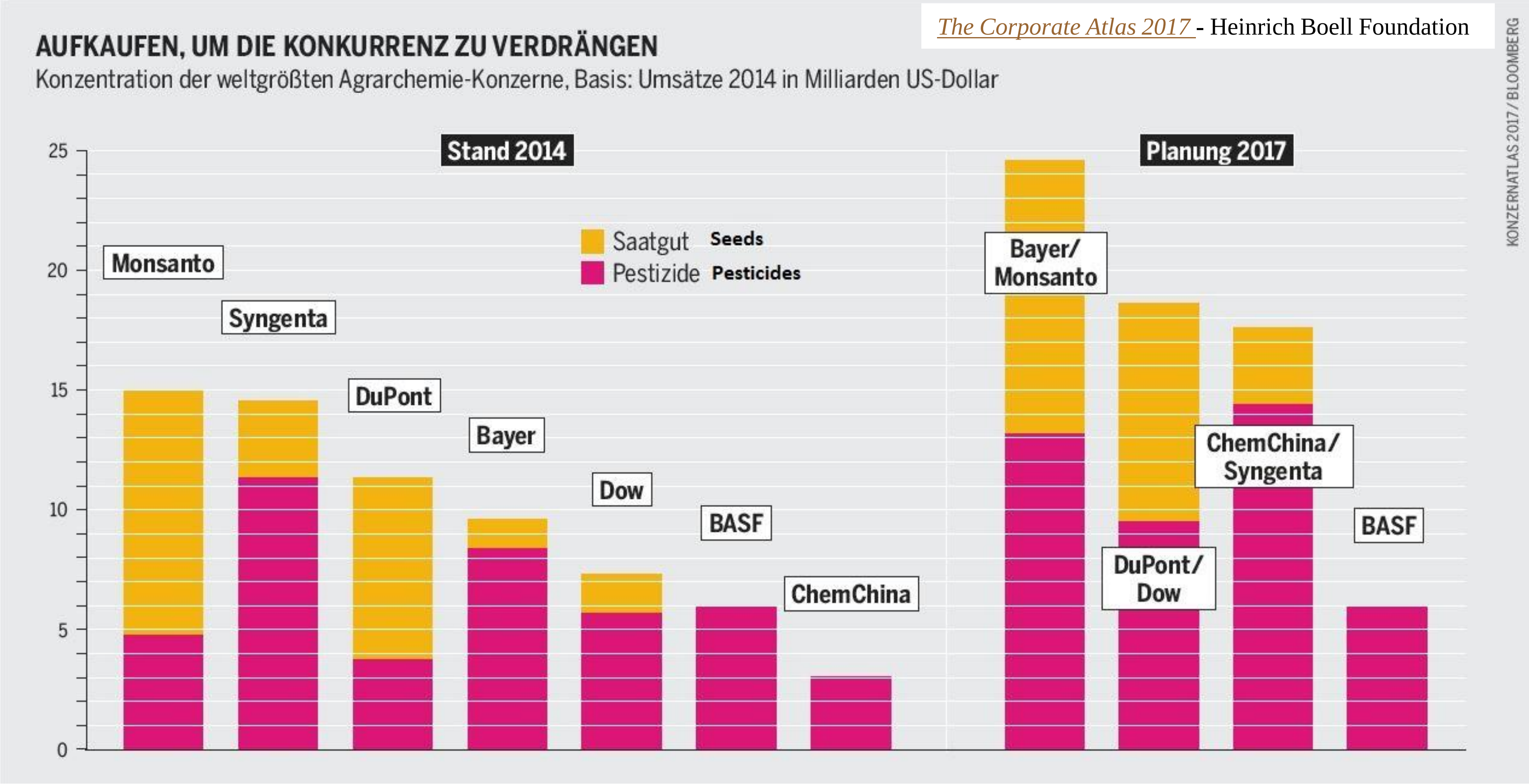
A worker prepares a railcar to transport potash from the Potash of Saskatchewan Lanigan mine in Lanigan, Sasketchewan, Canada.

INPUTS: Agrochemicals and Seeds



The Corporate Atlas 2017 - Heinrich Boell Foundation

INPUTS: Agrochemicals and Seeds



ChemChina – Govt. of China agency. Top three Co.s control ~70% of world market. Saudi Arabia, China, and others are making strategic investments in food sovereignty including technology, genetics/seeds, and farm land while Canada surrenders ours.

INPUTS: Agrochemicals and Seeds

- Until the late 1980s, the public sector did 95% of plant breeding in Canada and 100% of the breeding for cereal crops and oilseeds.
- Cereal crops research directed by farmers (***Western Grains Research Foundation***)
- Plant Breeders' Rights + Alberta Astroturf = Canola genome given to private sector

Perfect experiment on public vs. private

INPUTS: Agrochemicals and Seeds

Public Plant Breeding wins the yield contest

1981/82 to 1999/00:

- *Average spring wheat yield increase = 1.25% per year.*
- *Average canola yield increase = 0.92% per year.*

2000/01 to 2012/13:

- *Average spring wheat yield increase = 2.94% per year.*
- *Average canola yield increase = 2.62% per year.*

INPUTS: Agrochemicals and Seeds

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Plant breeding investment required to keep the current rate of yield increase

- ***Wheat: $25 Million per year (Public plant breeding)***
- ***Canola: $80 Million per year (Private company plant breeding)***

Public Plant Breeding costs less for better results

than private canola breeding

From: Dr. R. Graf,"Crop Yield and Production Trends in Western Canada" – March, 2013

Note: private plant breeding is 3.2 times more expensive than the public system

INPUTS: Agrochemicals and Seeds

Farm seed cost per acre, 2017

Wheat: $11.00
Barley: $ 9.75
Canola: $70.00

Note: The following link contains extensive source materials and background information

(**annual farm cost of private seed is ~7 times greater than public seed**)

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INPUTS: Agrochemicals and Seeds

Why was the canola genome given to the private sector?

Promises of GM technology:

- management simplicity
- less herbicide use
- conservation
- environmentally friendly

Sold to farmers as simple

Sold to the public as environmentally friendly / less chemical use

INPUTS: Agrochemicals and Seeds

CONFLICT OF INTEREST:

- Herbicide Tolerant (HT)/GM canola becomes a weed in: HT/GM wheat, HT/GM soy beans, HT/GM corn, HT/GM alfalfa

-HT/GM wheat, HT/GM soy beans, HT/GM corn, HT/GM alfalfa become weeds in HT/GM canola

-There are new herbicides which must be applied to contend with this new problem for each of the above combinations

Public Interest verses Private Interest

Note: GM wheat has not been approved in Canada yet. GM canola, corn and soy beans are already planted on the prairies. GM alfalfa is approved in Ontario and pending in the west.

INPUTS: Agrochemicals and Seeds

Basic Plant Breeding

See page 29 for greater detail

Selection of best plants and animals **- past 10,000 years**

First Public Interest Plant Breeding in human history starting in the 1890s in Canada

-First Cross Breeding of cereals William Saunders founder Dominion Experimental Farms Service

-Marquis wheat from crosses made in early 1890s

-Cdn Dominion Cerealist Charles Saunders **-1903**

Public Interest Plant Breeding – partnership between farmers/WGRF and the Federal Government funding Universities and supplying research farms and staff.

Two Stages to a new variety

Stage One: Varietal Development: "Best crosses" for growing in Canada selected by researchers working with farmers/WGRF **7 to 10 years**

Stage Two: Varietal Finishing: "Best varieties" chosen by farmers/researchers/WGRF

- "Best varieties" multiplied by Research Stations = **Pedigreed seed stocks**

- **Pedigreed seed stocks** sold to farmer/Pedigreed Seed Growers for further multiplication and sale to commercial farmers **2 to 8 years** *royalties to WGRF*

100% reinvested in breeding programs.

"Rust Never Sleeps" - as older varieties are attacked by plant diseases and fungi they must be replaced with more resistant varieties. For profit reasons the agrochemical companies want to replace natural resistance with chemicals they manufacture and sell.

INPUTS: Agrochemicals and Seeds

Basic Plant Breeding

See page 29 for greater detail

Public Interest verses Private Interest

Two Stages to a new variety

Stage One: Varietal Development: "Best crosses" for growing in Canada selected by researchers working with farmers/WGRF **7 to 10 years**

*2014 – Harper starts the process to give private companies control over which "best crosses" go on to **varietal finishing** - Private Companies now the gate keepers – conflict of interest*

- in my view the Government of Alberta has an absolute obligation in the public interest to stop this and dismantle the industry-captured check-off groups supporting this as they are acting against the interests of the farmers who fund them

Stage Two: Varietal Finishing: "Best varieties" chosen by ~~farmers/researchers/WGRF~~ *private companies*

- "Best varieties" multiplied by ~~Research Stations~~ *private companies?* = **Pedigreed seed**
- **Pedigreed seed** sold to farmer/Pedigreed Seed Growers for further multiplication and sale to commercial farmers **2 to 8 years** *royalties to ~~WGRF~~ private companies*

Before privatization pedigreed canola seed was produced in southern Alberta largely on irrigated land. Now it is increasingly produced off-shore (primarily Chile).

Royalties on private seed go to corporate profits. Typically private reinvestment in R&D amounts to ~ 10% of net sales.

INPUTS: Agrochemicals and Seeds

CONFLICT OF INTEREST:

-“Rescue” wheat licensed in 1946. No need for DDT to counter Wheat Stem Sawfly

-Today’s midge tolerant wheats are a comparatively new development from public plant breeding

Canola requires insecticides in spite of the fact there are “hairy” canola varieties which would be insect resistant

Should a company that makes insecticides/herbicides be the gate-keeper for this type of research and the finishing of new varieties?

Public Interest verses Private Interest

Having insect tolerant wheat is worth almost $300 million a year to prairie farmers in better yields and lower pesticide costs

INPUTS: Agrochemicals and Seeds

Alberta Agriculture Check-off groups:

Farmer paid levy (*million*)

- Alberta Barley Commission $2.3
- Alberta Wheat Commission $6.0
- Alberta Canola Commission $6.1

~ 75% of dollars spent on publications, staff and junkets for board members & staff

producer payments total: $14.4

research: $ 3.5 24%

STAFF
ABC+AWC = ~29
VS
WGRF = 8

Western Grains Research Foundation

producer payments total: $ 8.27 (*million*)

research: $19.7

Other *WGRF* income: $20.5 million from royalties on pedigreed seed, endowment income

WGRF also has $160 million in endowment funds. On average, every check-off dollar invested in varietal research returns $20.40 in value to farmers for wheat, and $7.56 for barley. Study by University of Saskatchewan

Dr. Graf 's study suggests ~$25 million needed to sustain public system. An extra ~ $5 million per year can easily come from check-off dollars currently spent on junkets and staff in Alberta.

The costs of losing food sovereignty

Context: Alberta exports $8 billion in agricultural products each year

- annual loss on grain marketing (R. Gray, University of Sk.)	$2.5 billion
- canola acreage: 21,242,020 X $59/acre excess cost =	$ 1.3 billion
	Total Annual cost: $3.8 billion

The loss to prairie farmers from just these two polices amounts to almost half of Alberta's annual farm exports

-Prairie Farmers are surrounded by cartels on all sides

- Loss of income
- Loss of Market Power
- Loss of food sovereignty
- Loss of benefits to farmers of quality control
- Loss of quality assurance to customers
- Loss of control of cereals genome
- Normalization of transgenic organisms
- Cartel-captured Astroturf groups pretend to speak for farmers to policy makers

Cereals Canada

2016 WHEAT QUALITY ABOUT US CEREALS CORNER NEWS & POLICIES BOARD MEMBERS OUR MEMBERS STRATEGY KEEP IT CLEAN CONTACT

Cereals Canada claims to be "Team Canada"

OUR MEMBERS

- Alberta Wheat
- Atlantic Grains Council
- BASF We create chemistry
- BAYER
- AFFILIATED MEMBER: Western Canadian Wheat Growers
- BC Grain Producers Association
- Canada Bread
- Canterra Seeds
- Cargill
- Dow AgroSciences
- DuPont
- syngenta
- Producteurs de grains du Québec
- FP Genetics
- Grain Farmers of Ontario
- Viterra
- LDC Louis Dreyfus Company
- Wheat and Barley
- Monsanto
- Richardson
- SeCan
- Warburtons

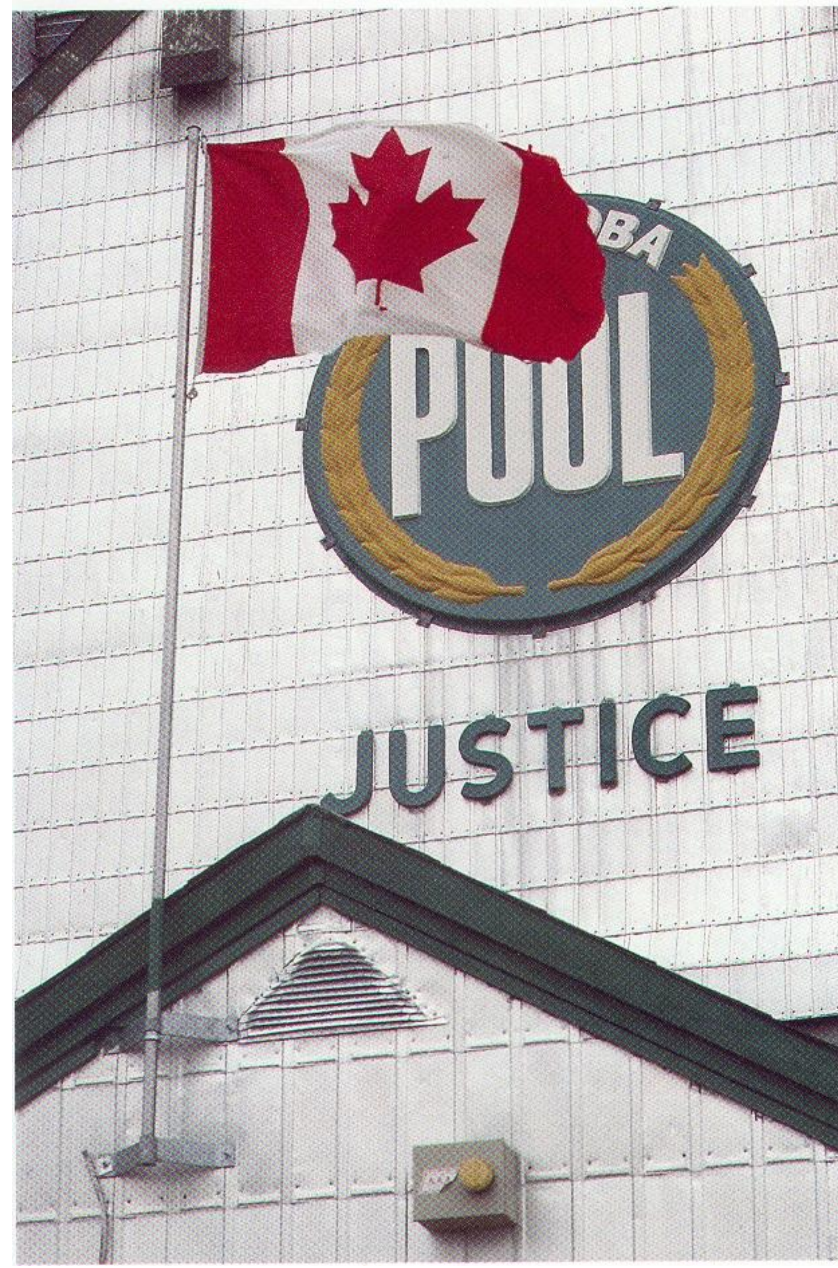
Among the costs of losing food sovereignty is a loss of political sovereignty

Sovereignty means ownership and control

- *Loss of our Wheat Pools = loss of control of grain handling*
- *Loss of our Wheat Board = loss of benefits of farmer ownership of grain to end use customers*
- *Crippling of Canadian Grain Commission = loss of quality assurance and our international reputation*
- *Loss of public interest plant breeding (WGRF/cereal genome) = loss of quality control, and loss of choice over what farmers can grow and what people eat*

Without these institutions we are no longer "Masters in our own house"

- *These Canadian institutions established economic justice for Canadian farmers and created collective prosperity in a globalized world market*
- *Without economic justice there can be no social justice*



Basic Plant Breeding

Extra details on variety development

Stage One: Varietal Development: 7 to 10 years

Many ~~Two~~ Stages to a new variety

Part One: "**Best crosses**" for growing in Canada selected by researchers working with farmers/WGRF - *then move on to:*
Part Two: 8 or more **Segregating Generations** – *then less than 1 in 1,000 move onto*:

Part Three: Preregistration Trials Of Crosses / Breeders compare various lines

Concurrent work: Cooperative Pre Variety Registration Trials Of Crosses - 3 year process

Performance Evaluation and Selection

Early Generation Nurseries
Inoculation Of Diseases @ Nurseries
Winter Nurseries to grow extra seed
Preliminary Quality Evaluations
Multi-location Adaption Trials
Final Pre-Registration Co-ops

Pedigreed Seed Production

Starts at same time as final preregistration coops
Year One: 200 single heads collected for first year entry
Year Two: 2 meter long head rows grown by breeder – atypicals discarded
Year Three: Seed Increase Unit produces initial Breeder Seed for pedigreed multiplication (final "C" level, cooperative trial)

-Typically the *Seed Increase Unit* **(Indian Head Research Stn)** plants 150-200 single plant progeny lines as single 15 meter rows per line. This is a costly, labour intensive process as each line is individually planted, labelled, inspected for uniformity, trueness to type and disease reaction and sub-sampled. Atypical or non-uniform lines are removed from the population and the remaining lines multiplied to form the first officially **certified Breeder Seed**.

Stage Two: Varietal Finishing: 2 to 8 years

*2014 – Harper starts the process to give private companies control over which "best crosses" go on to **varietal finishing** - Private Companies now the gate keepers – conflict of interest*

-Part Four: Winners are sent to *SIU* (Indian Head Research Stn) for multiplication into Pedigreed Breeder Seed Stocks
-Part Five: Pedigreed Breeder Seed sold to Pedigreed Seed Growers (farmers)

Harper ends independent CFIA inspection of Pedigreed Seed Growers in 2014

-Part Six: Pedigreed Seed grower multiplies Breeder Seed – "rogues" first and second year plantings for atypical plants
-Part Seven: Pedigreed Seed grower has enough seed to sell to commercial farmers as "Bulk Certified Pedigreed Seed"

royalties to WGRF *100% of royalties reinvested in breeding programs.*

Under the Harper model, royalties on cereals, as is now the case with canola, will go to a private agrochemical seed company

❖The bottom line is the key roles played by public sector scientists, research centres, and research farms

- ❖producing and impartially evaluating improved varieties for Canadian farmers that
- ❖fit the agro ecology of the prairies and
- ❖meet consumer expectations for quality assurance

❖This system of research centres and research farms is key to the operation of performance evaluation trials which select lines with improved performance. These field evaluations are critical to successful plant breeding in the public interest.

❖The elimination of research farms would be a crippling blow to these breeding programs as witnessed by the Harper Government's closure of the Regina Research Station which was especially important for durum wheat breeding or the closure of the St. Foy, Quebec research station which specialized in fusarium research.

Performance Evaluation and Selection

Pedigreed Seed Production

WGRF Barley Technical Committee touring barley plots in Brandon

2014 – Harper starts the process to give private companies control over which "best crosses" go on to ***varietal finishing*** *- Private Companies now the gate keepers – conflict of interest*

Harvesting durum at Glenlea

Under the Harper model, royalties on cereals, as is now the case with canola, will go to a private agrochemical seed company