



AUTHORITY[®]

480 HERBICIDE

Mitch Long
Product Development Manager
FMC of Canada

The FMC logo is centered within a white trapezoidal shape. On either side of this shape, there are several dark red chemical molecular structures. The background of the slide is red, and the entire graphic is framed by a brown border at the top.

FMC

History of FMC Corporation

1883 Retired inventor **John Bean** set out to build a better insecticide spray pump.

1904 On May 20, the **Bean Spray Pump Company** is incorporated.

1943 Food Machinery Corporation launches into the chemical business with the acquisition of **Niagara Sprayer & Chemical Co.** (insecticides and fungicides).

1961 Name changes to **FMC Corporation**.

December 31, 2001, FMC Corporation completes spin-off of FMC Technologies.

Sept, 2014 FMC Corporation announces agreement to acquire Cheminova.

1884 Bean patents his **high-pressure continuous action spray pump** and sets up shop behind his house.

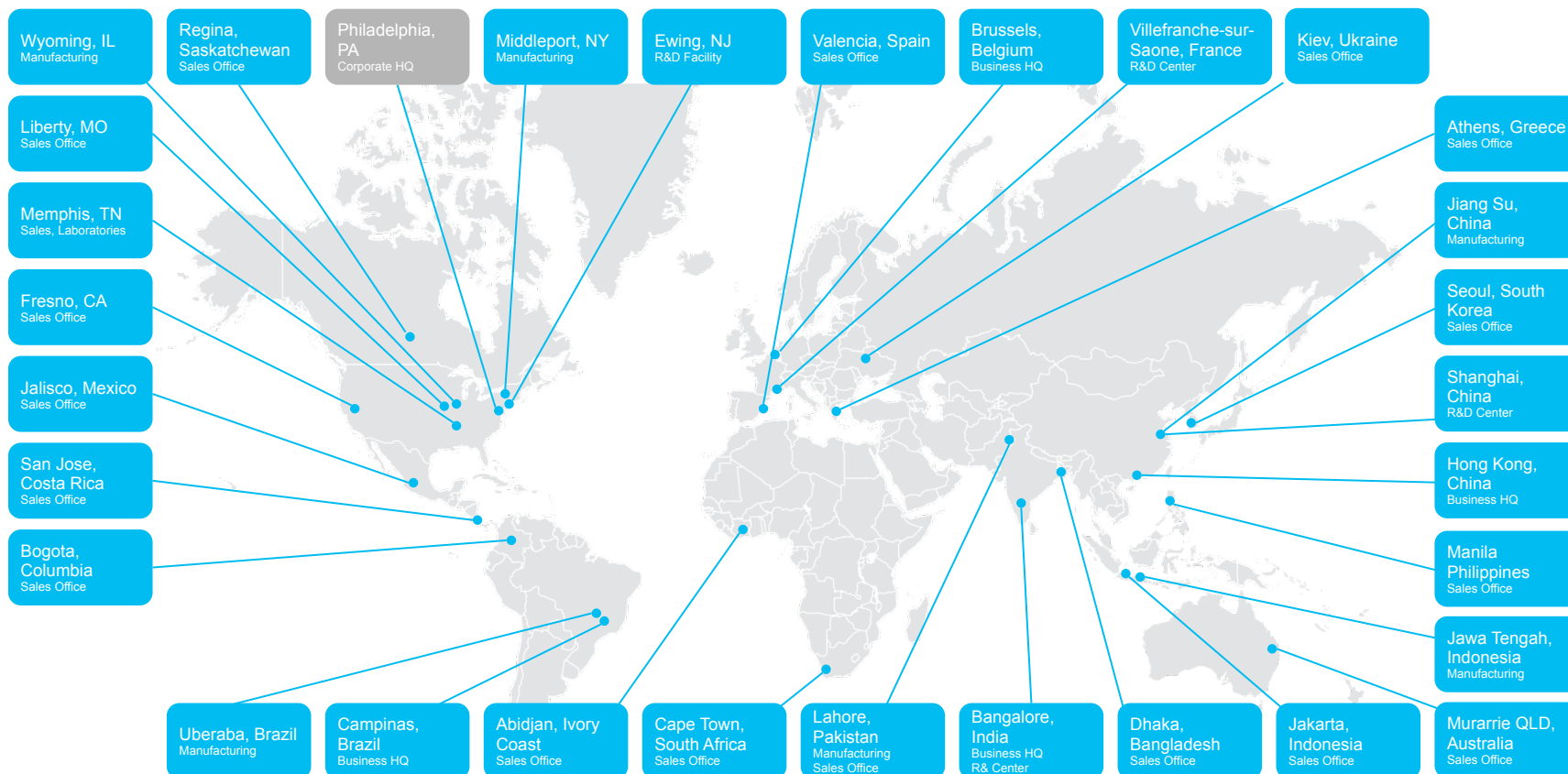
1928 Stock for the newly renamed **John Bean Manufacturing Company** is introduced on the San Francisco Exchange on Sept. 14. On Oct. 1, the acquisitions of Anderson-Barngrover Co. and Sprague-Sells (canning machinery) make the Bean Company the world's largest food machinery manufacturer. Company name is changed to **Food Machinery Corporation**.

1948 The company changes its name to **Food Machinery and Chemical Corporation** after the acquisition of Westvaco Chemical Corp.

2000 FMC announces plans to restructure the company into two separate, publicly traded companies - a machinery business (**FMC Technologies**) and a chemicals business (**FMC Corporation**).

2013 FMC announces new business portfolios **FMC Agricultural Solutions, FMC Minerals, FMC Health and Nutrition**.

Our Global Locations – Agricultural Solutions



FMC Canadian Offerings



New group 14 pre-emergent residual broadleaf herbicide for field peas, flax, chickpeas, & sunflowers



Group 14 Pre-plant burn down in pulses, canola & cereals, plus desiccant herbicide



Group 2 economical fungicide



Group 15 Grass & broadleaf herbicide in Corn + Soybean + Spring/winter wheat



Broad-spectrum residual pyrethroid insecticide



Novel sucking pest insecticide for vegetables



Group 13 Pre-emergent grass & broadleaf herbicide in soybeans, cucurbits & sweet potatoes

Pounce
Broad-spectrum pyrethroid insecticide

FMC Canada - Organization

Canada Country Manager
David Strilchuk

Development Manager
Mitch Long

Regulatory Managers
Theresa Geil
Galina Radeva

Western Sales Manager
Jeff McSymytz

Marketing Manager
Carmen Lowe-Wasserman

Operations Manager
Paul Foster

Sales Managers

Western Canada

Mike Gerhardt (SK)

Travis Goebel (SK)

Kerry Dyck (MB)

Nolan Kowalchuk (AB)

Brooke Dorgan (SK)

Gord Hamilton (SK)

Darren Froats (SK)

Eastern Canada

Mark McMillan

Wayne Myers

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- Active ingredient: Sulfentrazone Group 14 MOA
- Pre-plant or pre-emergent application, **NO** incorporation
- Requires $\sim \frac{1}{4}$ " of rainfall to activate
- Sets a barrier in the soil to prevent weed development



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- Currently registered for use in soybeans, field peas, flax, chickpeas and sunflowers.
- Use rates 219 ml/ha to 292 ml/ha (40 to 32 ac/jug)

- Weeds:

Use rate (ml/ha)	Weeds controlled
219	Kochia
292	Above weeds plus: Redroot pigweed Lamb's-quarters Wild buckwheat Cleavers (suppression)

Flexible Recropping



Crop	Replant Interval (Months)
Alfalfa	12
Barley	12
Canola	12
Chickpea	Anytime
Corn, field	12
Corn, sweet & pop	24
Field pea	Anytime
Flax	Anytime
Lentils	24
Sorghum	24
Soybeans	Anytime
Sunflowers	Anytime
Spring & Durum wheat	12
Winter wheat	4 - submitted

**A 12 month
interval means
you can plant
that crop the
following year
after using
Authority**

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Tame Mustard

- Submission to PMRA through the Minor Use Program to add Tame Mustard to the Authority registered crops.
- Supporting work conducted at Scott, Vanguard and Kernen, SK and Lethbridge and Cypress, AB from 2007 to 2014.
- Included under the “tame mustard”: yellow or white mustard (*Sinapis alba*), brown or Indian or oriental mustard (*Brassica juncea*) and Ethiopian mustard (*Brassica carinata*).

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■ DIRECTIONS FOR USE IN TAME MUSTARD

- Authority 480 Herbicide may be applied pre-plant or pre-emergence at a rate of 219 ml/ha to control kochia in tame mustard. Authority 480 Herbicide can be applied prior to planting or up to 3 days after planting, but before seed germination.

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Tame Mustard

- Spring application only as on the current Authority 480 Herbicide label.
- Research indicates that spring or fall application resulted in the same level of crop response.
- Kochia is the only labeled weed at the proposed use rate.

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Tame Mustard tolerance:

- Data from 9 field trials with “fall” application and 5 trials with “spring” application the 219 ml/ha rate of application, the crop injuries if any, were within the acceptable level (<10%), regardless of the mustard types and application timing.
- In one carinata trial 13% injury was recorded at 7-14 DAE. However, the level of injury declined to 1% by 42-63 DAE.

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Authority 219 ml/ha
Spring application
June 2014 Scott, SK



Alba



Juncea



Carinata

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■ *Yield:*

- Nine of the 13 trials recorded seed yield of mustard at crop maturity. Regardless of the time of application and mustard types, seed yield of mustard was not affected significantly with the application of sulfentrazone at all rates tested as compared to the untreated checks

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- Registration of Tame Mustard is expected July 2016.

