

Welcome to the 3rd China-Canada Crop Protection Conference & Product Show

Crop Protection Market and Pesticide Registration in Canada

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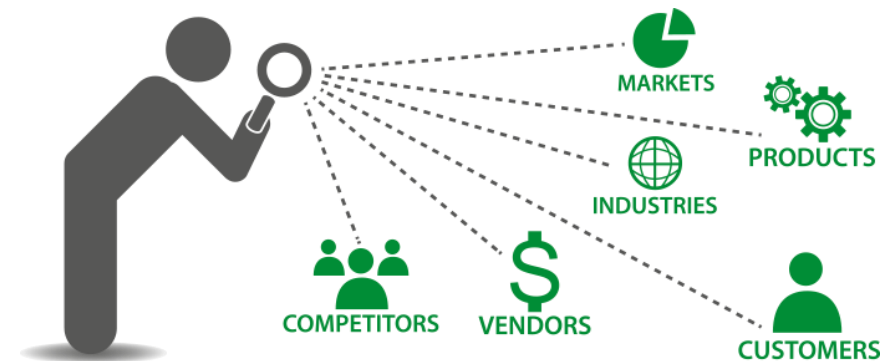
Content

- Introduction of Hanson Agrochemical Consulting (I, II, III)
- Main Crops and Seeded Area (1,000 Ha) in Canada
- Leading Crop Protection Companies
- Leading Crop Protection Countries
- Crop Protection Market Analysis in Canada (generic product positioning)
- Top 10 Products on Wheat and Canola in Canada
- Suggested Active Ingredients to be Registered at PMRA
- How does Chinese Agrochemicals Reshape the Global Crop Protection Market?
- Hanson is Bridging the Needs and Supplies
- The Key Dealers/Distributors in Canada

Brief Intro on Hanson Agrochemical Consulting (I)

– Marketing Research

- Hanson Agrochemical Consulting, a subsidiary of Hanson Industry Company, was established in 2014 in London, Ontario, Canada. There are currently 7 staff members, 4 of whom are responsible for pesticide product registration. Hanson Agrochemical's business covers three segments: pesticide **market research**, **product registration** (including PMRA and EPA) and product **market development**.
- The company has been conducting a comprehensive *pesticide market survey for Phillips McDougall in Asia Pacific*, such as China, Thailand, Vietnam, the Philippines, the collected data include the top 30 pesticides, fungicides and herbicides in sales volume, ex-manufactures values and target crops. Hanson team has updated and published financial performance, product portfolios, R&D, and future directions of *the listed crop protection companies* yearly since 2016.



Brief Intro on Hanson Agrochemical Consulting (II)

– Product Registration

- Hanson Agrochemical Consulting is very proficient in the operational procedures for pesticide registration in Canada (PMRA) and the United States (EPA), especially for data compensation. Hanson team has published ***Agrow Product Registration Overview Reports for United States, China, Canada, Thailand, Vietnam, and the Philippines*** during 2017-2018. At present, 21 product registration applications have been submitted and 5 product registrations have been successfully approved. Hanson Agrochemical Consulting has been widely recognized and highly praised by the industry for its customer-first, contract-credit, good-faith, cost savings, and fast registration.
- Hanson Agrochemical submitted ***21 product registration applications*** to PMRA since 2014, including technical and formulation of tebuconazole, the technical of glyphosate, the technical and formulation of glufosinate, the technical of mesotrione, the technical of atrazine, florasulam, boscalid, isoxaflutole and s-metolachlor.
- Among them, the technical products of **glufosinate** (2 manufacturers), **florasulam**, **boscalid**, and **s-metolachlor** have been registered in PMRA.



Brief Intro on Hanson Agrochemical Consulting (III)

– Market development

Hanson also attaches great importance to the construction of North American product channels. At present, Hanson has established a good relationship with major distributors in Canada, paving the way for pesticide products to enter the end-user market smoothly.



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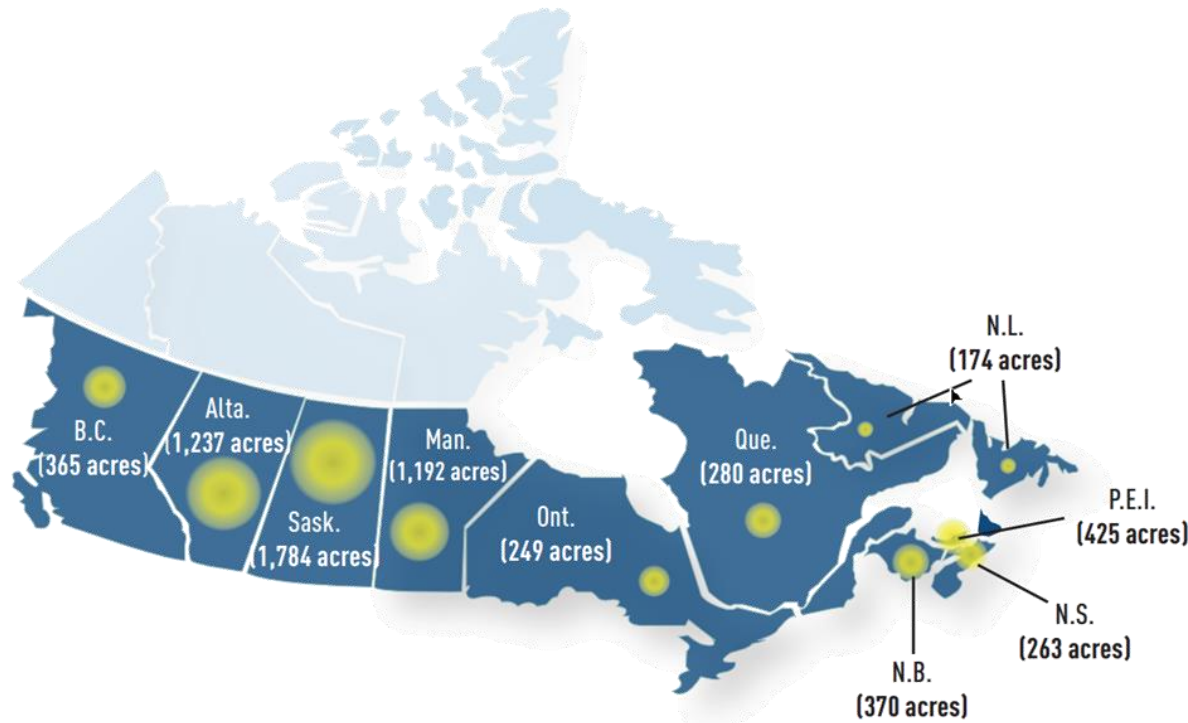
Kqiao



Farms.com



Average Farm Area in Acres by Provinces



1 acre = 6.07 Chinese mu

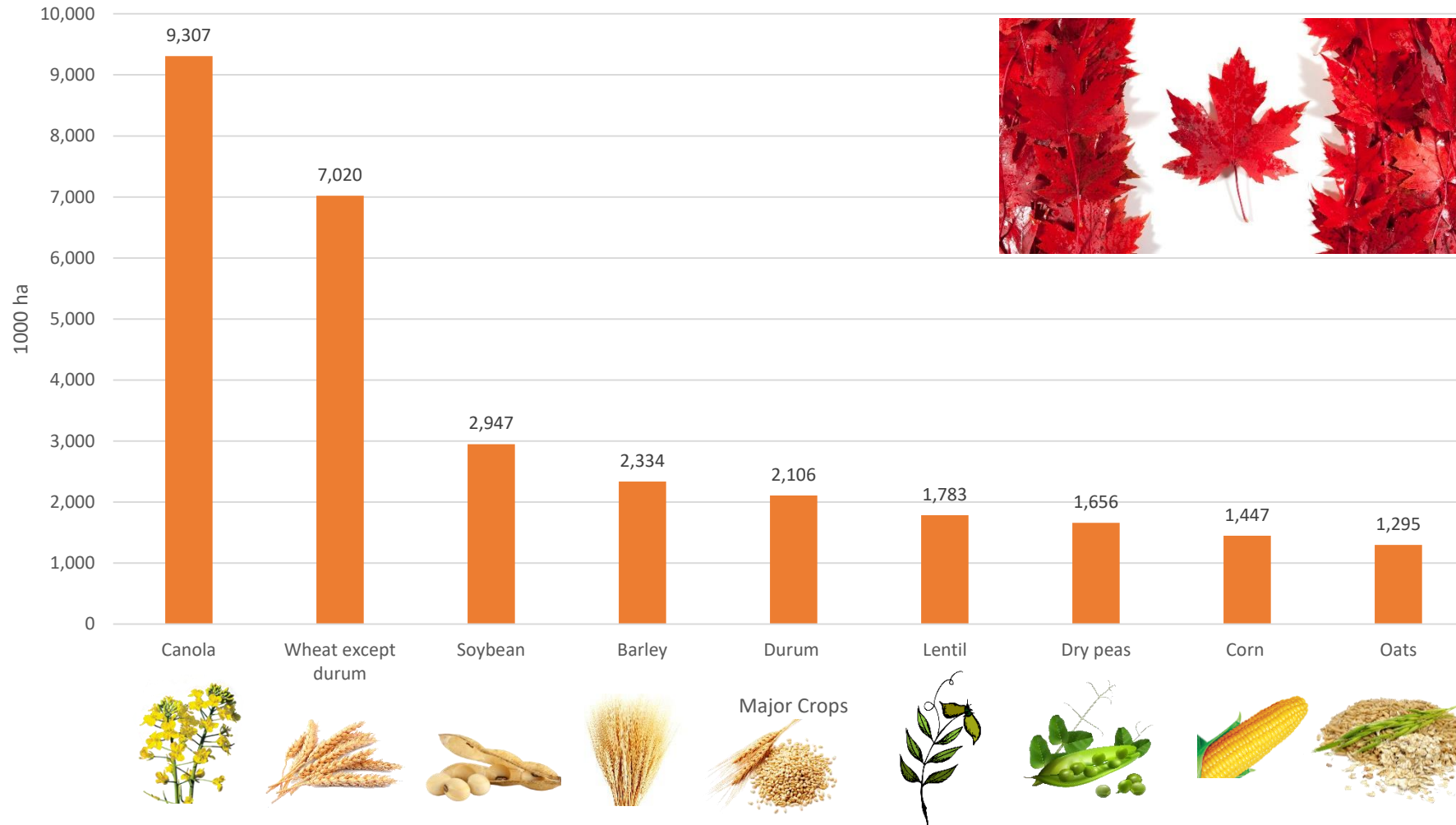
Field Crops by Acres



<http://www.statcan.gc.ca/pub/11-627-m/11-627-m2017012-eng.pdf>

Source: Census of Agriculture, 2016 (the newest)

Seeded Area (1,000 ha) of Principal Field Crops in Canada (2017-2018)



Leading Crop Protection Market (\$m, 2017)

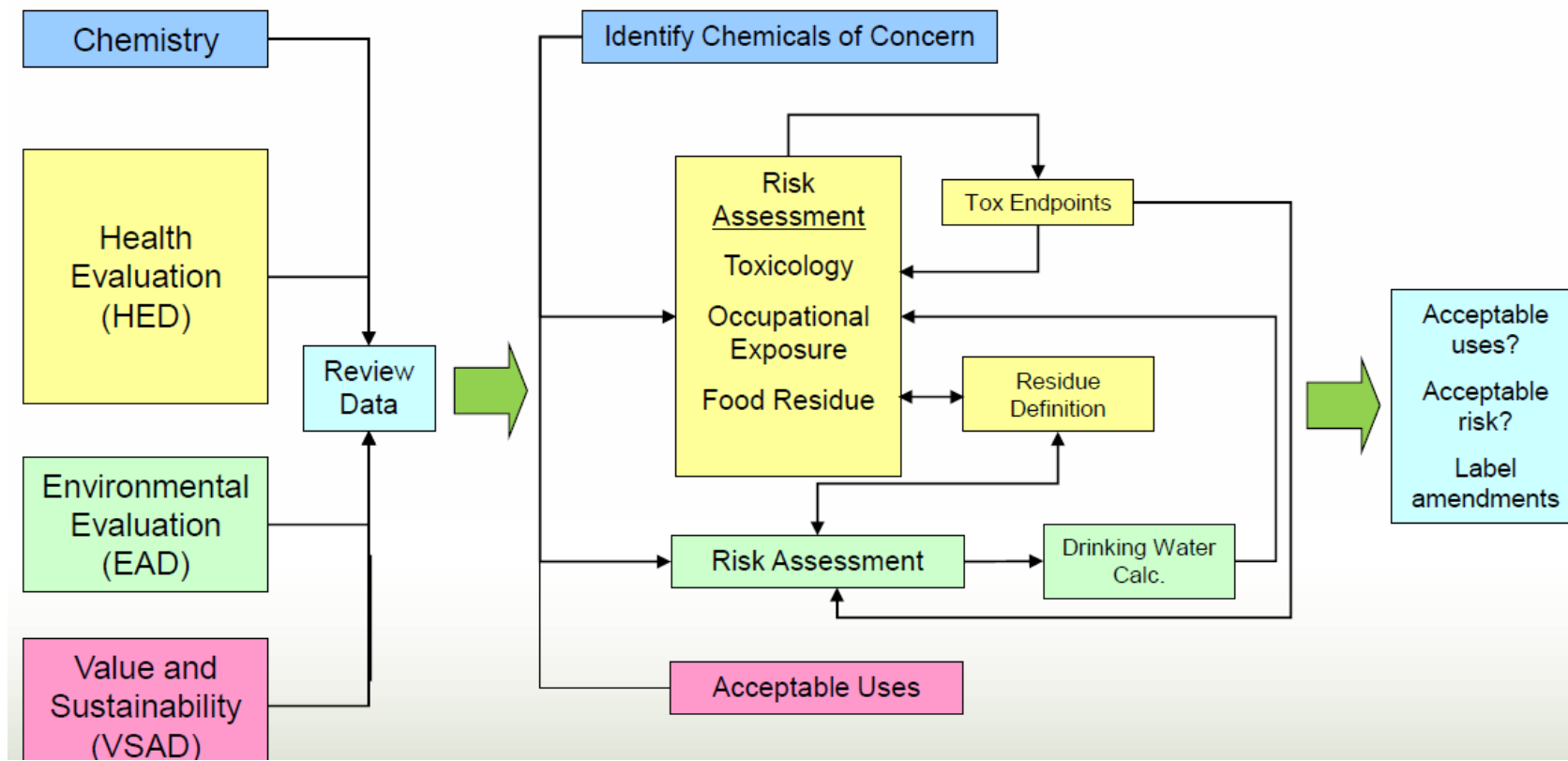


Acceptance of Generic Products in Canada (2018)



Few farmers will even consider a generic product if the price gap versus the original brand is <10%. But if the gap gets to 20% or more, a lot of farmers will take a closer look at the generic option.

How is the Product Registration Application Evaluated?



Proposed Products to be Registered in PMRA (I)

- 1) 草铵膦Glufosinate（目前没有数据补偿，市场容量世界第一，折合原药需求4000吨）； Glufosinate (currently no data compensation, the world's largest market globally, equivalent to 4,000 tons of technical in demand).
- 2) 草甘膦Glyphosate（市场容量大，1.5亿美元）； Glyphosate (annual market value is \$150 million).
- 3) 2,4-DB (市场容量为574万美元，仅次于美国)； market value is \$5.74 million, the 2nd largest market in the globe.
- 4) 烯草酮Clethodim（市值近2000万美元）； market value is \$20 million.
- 5) 炔草酯Clodinafop-propargyl（麦类面积大，草害重，值得登记）； large acreage of wheat, heavy grass infection, worth registering
- 6) 溴苯腈Bromoxynil（麦类苗后除草，市值2500万美元）； post emergence herbicide in wheat field, market value of 25 million US dollars
- 7) 双氟磺草胺Florasulam（仅次于俄罗斯，世界第二大市场，市值2500万美元，目前免数据补偿）； the largest market in the globe, market value of \$60 million
- 8) 精异丙甲草胺S-metolachlor（市场大，无数据补偿）； huge market, no data compensation
- 9) 甲氧咪草烟 Imazamox (市值1700万美元)；
- 10) 甲氧磺草胺Pyroxsulam (世界第一大市场，达5300万美元，关注专利期)； the largest market in the globe, market value of \$53 million, the patent issues should be tracked
- 11) 氟唑磺隆（世界第一大市场，2300万美元，专利已过）； the largest market in the globe, market value of \$23 million, molecule patent expired



The Top 10 Distributors in Canada

- **CPS (Crop Production Service)** --- <http://www.cpsagu.com/map/Default.aspx> , mainly in prairie provinces.
- **Richardson** --- <http://www.richardson.ca/> largest private company in Canada
- Federated coop --- **federated co-operatives limited**,
<https://www.coopconnection.ca/wps/portal/fclretail/FCLInternet/AboutUs/FCL/>, active in BC, SK, AB, MB.
- **La Coop fédérée** --- <http://web.lacoop.coop/en/crop-production>
- **Cargill** --- <http://www.cargill.ca/en/products-services/index.jsp>
- **Univar** --- <http://www.univar.com/en/Canada/Industries/Agriculture.aspx>
- **Paterson grain** --- <http://www.patersongrain.com/for-farmers/crop-inputs/crop-protection/>
- **Interag** – (the distribute Bayer products only) --- <http://interag.ca/our-company/default.aspx>
- **McCains** --- <http://www.mccain.com/about-us/board-of-directors>
- **Cavendish Agri Service** --- <http://www.cavagri.com/cavendish-agri-products-cropprotectants.aspx> East Canada (maritime)
- **Synagri** --- <http://www.synagri.ca/crop-protection-crop-health-s42/> (BASF), Quebec

Rising China

- **Tier 1**

- Bayer (Monsanto)
- **Syngenta**
- BASF
- Corteva (Dow/Dupont)
- FMC
- **Adama**

Bigger than 2.0 b\$

- **Tier 2**

- UPL (Arysta)
- Sumitomo

1.8-2.0 b\$

- **Tier 3**

- Nutrichem
- Rainbow
- Fuhua Tongda
- Nanjing Red Sun
- Sinochem
- Huifeng
- Zhejiang Wynca
- Hubei Sanonda

0.5-0.8 b\$

- **Tier 4**

- Gowan
- Sipcam
- Smaller Chinese players
- Indian players

less than 0.5 b\$

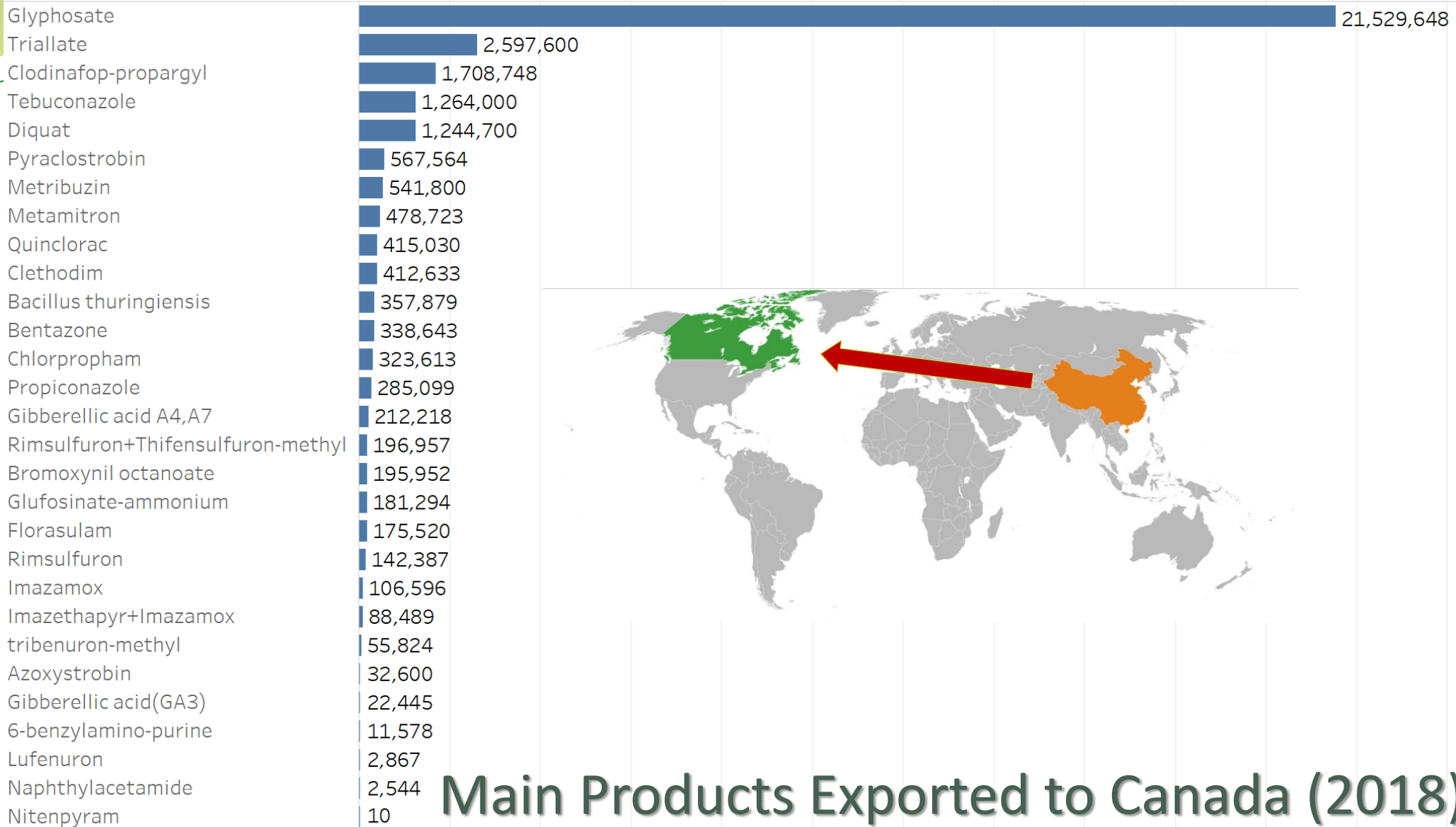


Summarization on Chinese Pesticide Exports in 2018

- Herbicides, insecticides/miticides, fungicides, rodenticides, PGRs, bio-pesticides
- 103,222 deals/shipments
- 457 solo-AI products, 477 mixed AI products (2 or more AIs in a product)
- 1,651 product manufacturers/exporters
- **12.45** billion USD



Product AI names



Main Products Exported to Canada (2018)

Total value (USD) ₺