

AGGENUITY CONSULTING INC.

# The Value of Seed Purchases by Canadian Primary Producers

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Summary from 2001 to 2006 Statistics Canada  
Data  
Final Report

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A project to measure the sales by the Canadian Seed Industry, as reported by Statistics Canada from 2001 to 2006, to Canadian producers.

# Proposal for

## **The Value of Seed Purchases by Canadian Primary Producers**

### **Objective**

The Canadian Seed Trade Association (CSTA) is seeking to gain a greater understanding of the total sales by the Canadian Seed Sector. Although studies do exist which outline sales by specific crop in Canada and for exports of seed, no national study have been completed that indicates the total value of seed sold in Canada. To this end the CSTA has requested information gathered from all sectors on the sales of seed to Canadian producers.

### **Approach and Scope**

There is limited information which outlines sales by the Canadian Seed Sector to primary producers in Canada. Statistics Canada does extract information from Revenue Canada tax filings and Canadian Agriculture Income Stabilization filings on the production and sales of seed to primary producers' Statistics Canada updates this information twice per year. Please note that the data for 2007 is preliminary and is not recommended for publishing. The information is collected in broad categories to aid in country wide compilation.

For purposes of this study, the most important categories are "Seed and Plant Purchases" (excluding materials purchased for resale) and "Fruit and tree-nut farming".

"Seed and Plant Purchases" (excluding materials purchased for resale) captures all purchases of seed for grain and oilseed crops, hay and forage crops, vegetables and greenhouses. These purchases are all products of the Canadian Seed Sector. Also included in this number are purchased of plants, mainly trees, used for establishment of fruit and nut orchards.

Statics Canada classifies farms by the majority of their sales. Therefore, a farm with at least 50% of its gross income being derived from sales of fruit and nuts would be classified as a "Fruit and Tree-Nut farm".

In order to identify only seed purchases, Statistics Canada can create an estimate by removing purchases by Tree and Nut farms. This will be done on a prorated basis from average purchase data.

Purchases of Seed by the Canadian Primary Producer

In summary, Statistics Canada can report seed purchases for 2001 to 2006 with confidence that the necessary adjustments are relatively small and driven by actual reports for producers.

## **Methodology**

Statistics Canada provides socioeconomic data through a website portal referred to as CANSIM. This database gives users access to information on a timely basis which can be sorted by a defined set of factors for each area.

Statistics Canada are able to access two sets of data

- 1) Table 002-0048 "Distribution of farms, by farm type and net operating income group, incorporated and unincorporated sectors, Canada and provinces"  
Data in the table was harvested by Statistics Canada from Canadian Agricultural Income and Taxation Data Program.
- 2) Table 002-0044 "Detailed average operating revenues and expenses of farms, by farm types, incorporated and unincorporated sectors, Canada and provinces, annual (dollars)".

Data in the tables was gathered by Statistics Canada from Canadian Agricultural Income and Taxation Data Program. (See Appendix 1)

To reach the goal of reporting seed purchases by producers, the average Seed and Plant purchases per year for all farms was multiplied by the number of farms reporting in that year. From this sum, the total of average Seed and Plant purchases per year by fruit and nut tree farms multiplied by the number of fruit and nut farms reporting in that year was deducted. Farms are classified as Fruit and nut tree farms if 50% or more of the yearly gross revenue comes from the sales of fruits and nuts.

The definitions used to classified farm type, revenue source and expenses were consistent for the period 2001 and 2006. The results from 2007 are available only in preliminary form at this time.

## **Results**

Results are reported in Table 1 and Graph 1

Purchases of Seed by the Canadian Primary Producer

The same calculation was used for Fertilizer and Lime Purchases, Pesticides Purchases and Total Crop expenses for comparison purposes. Data is available for a total of 25 different expense categories; however the three expenses compiled here are the most comparable with seed.

The purchases reported here show the Canada-wide results. These have the highest level of accuracy due to the larger sample size. Regional and provincial results would have lower level of accuracy due to the small number of fruit and nut farms reporting in some regions and provinces.

#### Selected Crop Input Purchases by Canadian Producers

	2001	2002	2003	2004	2005	2006
Seed and Plant Purchases	\$ 1,423	\$1,536	\$1,533	\$1,522	\$1,594	\$1,650
Fertilizer and Lime Purchases	\$2,177	\$2,128	\$2,342	\$2,305	\$2,406	\$2,533
Pesticide Purchases	\$1,377	\$1,319	\$1,455	\$1,479	\$1,512	\$1,529
Total Crop Expenses	\$5,275	\$5,304	\$5,673	\$5,671	\$5,898	\$6,122

*Results rounded to the nearest million dollar amount*

Table 1 shows that Canadian producers reported purchasing \$1,423 million in planting seed in 2001. These purchases grew to \$1,650 million in 2006, an average growth rate of 2.94% per year. Only one year, 2004, did not see an increase in purchases as the decline in that year was a very slight \$11 million dollars. Seed and Plant Purchases rank second to Fertilizers and Lime and are comparable to the sales of Pesticides.

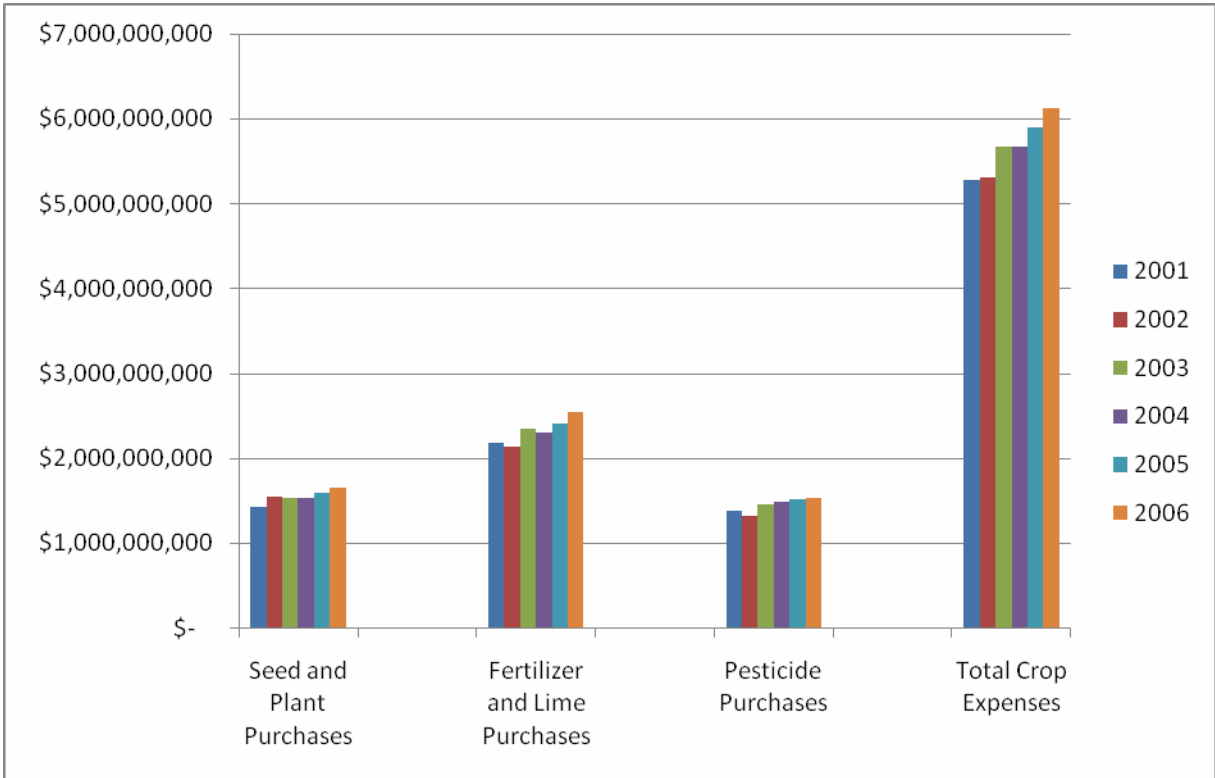
Due the nature of the reporting, Statistics Canada cannot determine what class of seed has been purchased, (certified, or common).

Purchases of Seed by the Canadian Primary Producer

By comparison, Fertilizer and Lime purchases grew by an average 3.08% per year and Pesticides purchases grew by 2.12% per year. Both Fertilizer and Lime purchases and Pesticides purchases had years in which sales declined.

The data used represented commercial farms. It is drawn from unincorporated farms with gross revenues greater than \$10,000 and incorporated farms with gross revenues greater than \$25,000. By their purchase practices, commercial producers in Canada rank seed and plant purchases of equal importance to the purchase of Pesticides.

Although the calculation has not been completed, data is available to calculate the relative importance of seed and plant purchases based on gross revenue, in comparison to 25 other expense items.



**Conclusion**

Seed and plant purchases by commercial producers have grown from \$1,423 million in 2001 to \$1,650 million in 2006. The rate of growth in purchases averaged 2.94%. Seed purchases appear to be more stable than Fertilizer and Lime purchases and Pesticides purchases.

Purchases of Seed by the Canadian Primary Producer

Due to the high use of farm-saved seed and significant sales of common seed in some markets, Statistics Canada cannot conclude that the pedigree seed industry has seen the same growth or stability in sales.

### **Project Team**

**Lorne Hadley, PAg. C.A.C.** is **President of AgGenuity Consulting Inc.**, a Canadian agricultural consultancy. Lorne has more than 20 years experience in the Canadian seed and grain industry. Lorne currently serves as the Executive Director of the Canadian Plant Technology Agency, a member-driven organization that educates monitors and enforces Intellectual Property for the seed sector. Lorne is recognized as a leading expert in Plant Breeders Rights for Canada and is a proven leader with Canadian agribusinesses, serving in management roles, seed marketing, special crop and grain handling operations. Lorne is skilled in developing new approaches to client challenges.

Lorne Hadley holds a BSA in Agricultural Economics from the University of Saskatchewan (1984).

## Appendix One Data source and methods

The data in this report was sourced from Statistics Canada reports distributed under the CANSIM program. The following is a summary of the data sources and methodology used by Statistics in developing the data used.

### **Canadian Agricultural Income Stabilization and Taxation Data Program (CAIS/TDP)**

- [Description](#)
- [Data sources and methodology](#)

#### **Description**

The CAIS/TDP covers two separate populations: unincorporated self-employed farmers and incorporated farms.

Data are used by Agriculture and Agri-Food Canada and by other federal and provincial departments, and by various agencies to perform analyses on the agriculture industries. The information is also used by Statistics Canada, Agriculture Division, Farm Income and Prices Section as input to produce expense estimates for Agricultural Expense Statistics.

#### **Data sources and methodology**

- [Data source](#)
- [Error detection](#)
- [Quality evaluation](#)
- [Disclosure control](#)

#### **Instrument design**

Statistics Canada collaborates with Canada Revenue Agency (CRA) to adapt their capture screens and develop new variables with them.

#### **Data sources**

Data are extracted from administrative files. As administrative data are involved, Statistics Canada has no control over the manner in which respondents provide information. The CAIS/TDP is also subject to changes in the Income Tax Act.

## **Error detection**

Statistics Canada performs outlier detection and correction (if applicable) and historical edits. Statistics Canada also performs a series of deterministic edits to correct missing, invalid or inconsistent entries.

## **Quality evaluation**

Statistics Canada compares our estimates with other existing agricultural statistical data sources.

## **Disclosure control**

Statistics Canada is prohibited by law from releasing any data which would divulge information obtained under the Statistics Act that relates to any identifiable person, business or organization without the prior knowledge or the consent in writing of that person, business or organization. The confidentiality provisions of the Statistics Act override the provisions of any other Act, including the Access to Information Act, to guarantee the confidentiality of reported data of individual respondents. Various confidentiality rules are applied to all data that are released or published to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent direct or residual disclosure of identifiable data.

For each of the tabulations produced, the estimated number of farms is rounded to the base "5" and the estimates of the other variables within that table are adjusted by a variable factor.

The Whole Farm Data Base is available through the On-line catalogue number 21F0005GPE

- Statistics on Revenues and Expenses of Farms

This publication provides detailed financial information on farm-level revenues, expenses and net operating income by province, type of farm (based on the North American Industry Classification System) and revenue class. Information on the degree of specialization for selected farm types and financial performance indicators of farms by province and by type of farm are also presented. This publication also includes data highlights and information on concepts, methods and data quality.

Available through the On-line catalogue number 21-208-XIE

