

## **Washington State Organic Agriculture Statistics**

Washington State University (WSU) has developed statistics on the state's organic agriculture sector annually since 2004. The data are used by producers, businesses, and policymakers and have provided the most current, accurate, and comprehensive data available for the state.

### **Background**

WSU has collaborated with Washington State Dept. of Agriculture (WSDA) on the development of statistics on the organic agriculture sector in the state since 2000. The Organic Program (originally the Organic Food Program) initially provided access to their paper files to David Granatstein, WSU, who initiated the project. He went to Olympia each year and manually examined files and photocopied relevant forms from which data were extracted and entered into an excel spreadsheet. A similar process was done to gather data from Oregon Tilth, as they are the second most important certifier for Washington. WSDA shifted to a database that could then be queried to create the desired reports. Oregon Tilth did the same. California Certified Organic Farmers (CCOF) began supplying data in 2013, and other certifiers have been contacted by phone to provide data on the limited number of farms they have in the state.

The National Organic Program (NOP) launched its Organic Integrity Database in 2015 to provide more real-time information on what farms and businesses are actually certified. Their data provide a list of all farms certified by all certifiers. Based on recent examinations, WSDA has certified 94% of the certified farms in the state.

Organic farms do not have to be certified (exempt farms) if their gross revenue is less than \$5,000 per year and all sales are direct. They still need to follow all the standards and keep the same records as a certified farm in case they are audited. A farm that qualifies as exempt may choose to be certified, and some small operations that sell in certain farmers' markets may be required to be certified. The WSDA data do not cover exempt, non-certified farms, while some of the USDA organic surveys do.

Nationally, Cathy Greene with USDA Economic Research Service in Washington, DC, undertook annual data collection from all certifiers across the country in an attempt to generate state level and national level statistics on the organic sector, starting in 1997. She and her staff either procured a database query from the certifier, or went to their office and manually reviewed files, as was done in our efforts. Once we were regularly generating data for WA, we provided it to Cathy Greene in lieu of her repeating the effort. While her data should be more complete than the USDA surveys (which can have low response rates) and represent a very accurate account, she did not gather extensive crop detail, and thus the information gleaned from those reports is limited but good quality.

The USDA National Agricultural Statistics Service (NASS) fielded its first organic survey in 2008, followed by another in 2011, and then others in 2014, 2015, and 2016. In 2014 and 2015, they also gathered data directly from certifiers as Cathy Greene had done. The NASS surveys have extensive detail by individual crop, including number of farms, acres, production volume, and sales value. However, due to low participation (often 60%), they are not always accurate despite their efforts to adjust data based on low response rate for each state. Eventually, the Organic Integrity Database may contain all the details needed to characterize the organic sector by linking directly to certifier electronic records. Since certifier

records are audited each year, and since all certified farms submit the required information, such a data set is the ideal solution.

#### **Pre-2005 data.**

Initial investigation focused on the organic tree fruit sector and resulted in the extension publication “Trends in organic tree fruit production in Washington State, 1988-1998 “ (Granatstein, 2000). Copies of the certified grower list were archived for most years from the inception of the program in 1988 until 2004, but not all the data were usable. The entries covered certified farms, their total organic acreage, their location, and the crops and livestock produced. Some information on transition was also available. In 2018, a file of certified farms by year and their annual gross revenue (reported during the renewal process and used as the basis for the program fees) for all years through 2016 was obtained. Files with various levels of detail for 2002-2004 were also archived.

#### **2005-2015**

During this period, Les Eklund with the WSDA staff, provided an annual database query output for generating each annual statistics report. The excel file typically contained three worksheets: Criteria 3, total farm acres; Criteria 1, crop category; Criteria 2, variety. Queries were not entirely consistent from year to year, as their database was constantly evolving and had not been set up for this purpose from the beginning.

Several steps needed to be taken once the raw data were received. First, Washington State data needed to be separated out, as WSDA certified farms in other states, and often it was included. Second, farm status or site status needed to be clearly identified as Certified, Transition, or sometimes Pending. The Certified and Transition were each evaluated separately, the Pending was generally excluded as its status could not be determined.

The data needed to be cleaned. Site acres were compared with crop category acres; if category acres > site acres, there were errors that needed to be investigated and corrected. For certain crops, the discrepancy was due to double cropping, such as green peas followed by sweet corn in the Columbia Basin, where the same site had two crops in one year and thus double the category acres compared to the site acres. Ultimately, this led to two different area values being reported – **acres** for individual crops (such that trends in production could be tracked over time) and the relative importance of groups of crops (e.g., vegetables, tree fruits, forages, grains); and **area**, which was generally the sum of site acres. WSDA was not entirely consistent in its inclusion of various lands on organic farms. Initially, an entire farm was often certified, which might include woodland that produced no saleable organic products. These values were included in the earlier years. In the mid-2010s, the decision was made to focus data entries on the acres producing saleable organic crops, and timber, cover crops, fallow, and other uses that did not produce a saleable crop were generally excluded from the data entry. In addition, WSDA typically used the area reported by the grower and did not do on-site measurements to verify. Gross discrepancies were identified and corrected as appropriate. Also, growers and reviewers were not always consistent or correct in the crop category and variety designations used. Thus, while the certifier data represent an entire census of the farms each year, various discrepancies, changes, and errors prevented data from being 100% accurate.

Reporting results to the variety level is important for certain crops such as apples and pears. Not all growers completely or accurately provided these details. For other crops, the variety field was not really variety but the more specific type of crop, such as pinto or black bean.

There were also spelling errors to correct in the crop category or variety fields. A column for 'VarietyCleaned' was created during the process to enter the corrected values for the final analysis. A key of variety names (not at the strain level) for apples, pears, and cherries was created to provide consistency from year to year. Some growers did not indicate variety, thus there was always a grouping for non-specified, which was different from the many minor varieties that were generally reported as 'Other.' Questionable results for a given crop or site could be checked in many cases by referring back to a previous year.

### **Ecert**

In April 2016, WSDA launched the Ecert database to replace the old system. Oregon Tilth had already done this several years prior. The crop categories in Ecert were set up to match a list generated by the NOP for the Organic Integrity Database, intended to create more consistency of reporting across the country. Additional fields were created, such as 'End Use' that could provide further detail on crop (e.g. pinto or black bean). The move to Ecert greatly improved consistency within the database.

### **Livestock**

Livestock data have not been routinely entered into the databases. Program staff have compiled numbers for dairy cows and milk production. More livestock information may be entered in the future. We have relied on NASS data for various estimates of livestock.

### **Mushrooms**

Mushroom production can be an indoor or outdoor operation. For some indoor operations, no field acres are listed. Several organic mushroom operations in the state produce significant volumes of products with sales value in the millions of dollars. These sales are typically listed as Producer sales and not Processor or Handler sales.

### **Farmgate sales**

During each annual renewal, a renewing farm operation reports its gross farmgate sales from the previous year. If the farm does not renew, their sales value for the previous year are not captured. Some operations do not report sales of the crop itself and only of the final product, such as wine grapes and wine. At least one large producer/winery in the state fits this situation, and those sales are not accounted for in WSDA farmgate data. Some farms have limited processing on site and the sale of their processed products is generally included in their farmgate total. A number of dairies that sell through Organic Valley cooperative do not report their sales via the certifier, rather the sales are aggregated and reported via the cooperative. Thus, these sales are generally missing from the annual farmgate estimate.

WSDA currently has all farms renew in January, and renewals are generally processed by May or June. At this point, the data for sales from the previous year can be queried. Oregon Tilth has renewals in January and May, and they suggest waiting until June to query their database for sales. CCOF cannot currently provide sales information.

## Tree Fruit data

The Washington State Tree Fruit Association (WSTFA) tracks price, size, grade, volume, and destination information for apples and pears, by variety, by week. They also have some data on cherries. They have consolidated the functions previously performed by several groups, including the Washington Growers Clearinghouse, the Wenatchee Traffic Association, and the Yakima Traffic Association. WSTFA has provided data on price and volume to WSU for use in its annual statistical reports.

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