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Extension's Oregon Agricultural Information Network (OAIN): A User's Guide

by

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The views expressed in this paper are those of the author and do not necessarily reflect those of the Department of Agricultural and Resource Economics at Oregon State University.



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Agriculture has always been a vital part of the economic landscape in Oregon. Even before Oregon was granted statehood on February 14, 1859, the state's agricultural sector was the driving force behind Oregon's economy. The Extension Oregon Agricultural Information Network (OAIN) at Oregon State University (OSU) has been electronically gathering and disseminating selected estimates on the state's agricultural production and sales since 1996.

This project is managed by the OSU Extension Service Economic Information Office in the Department of Agricultural & Resource Economics (AREc) at OSU. Prior to the development of OAIN, county agricultural estimates were collected by phone, mail and personal contact between Office personnel and our Extension and research faculty stationed statewide. The Office has comprehensive county agricultural production and value estimates going back to the late 1950s. Prior to that, there are more limited estimates going back as far as 1869.

All county agricultural estimates that we have prior to 1976 exist in a non-electronic form — printed and/or hand written documents. However, all estimates from 1976 to the present are available electronically on the OAIN website. In addition, an extensive number of enterprise budgets for selected commodities can be accessed through the website. In addition there are also links to many additional sources of information. One such organization is the OSU Extension Service through OSU Extension and Experiment Station Communications (EESC). Other organizations include the U.S. Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) and their Oregon Agricultural Statistics Service (OASS) office, other branches of USDA, and the Oregon Department of Agriculture.

You will find this User's Guide most helpful if you simultaneously open the OAIN homepage. The URL is: <http://oregonstate.edu/oain> Throughout this publication, frequent reference will be made to specific buttons and links on the website. You may access anything on the website with the exception of confidential estimates within the OAIN Database button found on the right side of our homepage. Within the OAIN Database, you may enter as a Guest, the default setting, which protects confidential estimates.

Many data sets and articles available through the OAIN website utilize PDF (Portable Document Format) files. PDFs are downloadable to your computer as readable files provided that you have installed appropriate software on your computer. Adobe Acrobat Reader is a software package which handles PDF files. To obtain a free installation of this software on your computer, you may click on the Get Adobe Reader icon at the bottom of the OAIN homepage.

Origin of the OAIN Program

OSU, as the state's land grant educational institution, is responsible for collecting and disseminating information on Oregon's crop and livestock production. In the early years, OAIN county estimates were collected and updated by one OSU employee who traveled across the state, county-by-county, to consult with OSU faculty in county and regional offices. This was a hand-calculation process each year that added to the county and statewide database maintained for agricultural commodities which were commercially produced in Oregon.

Advances in electronic database systems and web-based technology during the 1990s encouraged the development of OAIN as we know it today. Increasingly, we expect to obtain information electronically through our own computers. By the turn of the century, the entire collection and dissemination process became increasingly paperless. Time efficiency was greatly increased — reports could be prepared and made available much earlier.

Exploring the OAIN Database (and related features)

A major portion of the OAIN website is devoted to the OAIN Database. Clicking on that green button to the lower right of the homepage provides access to 30+ years of county estimates — by commodity and by county. In addition there are many summary features. In a typical year, about 70 OSU faculty across the state complete more than 1400 county commodity estimates since many of our 130+ commercial commodities in the state are produced in more than one county.

What the Database Tracks

The term commercial means crops and livestock which are grown for economic gain. Selling occurs through a wide variety of outlets from farm direct marketing to traditional wholesale markets. We exclude commodities which are being produced solely for private consumption and backyard-type production that is not intended for commercial purposes.

Some commodities may only be produced in one county while others may be produced in many or all counties. Unlike some states that feature a handful of commercial ag commodities, we typically track over 130 named commodities plus numerous miscellaneous crops and livestock. We don't report estimates by variety or breed.

In the case of farm forest products, we estimate the commercial value of logs and firewood that are produced on enterprises which are a part of a farming or ranching operation. We exclude timber production associated with industrial logging and sawmill operations.

From time to time, clientele and faculty encourage the creation of a new commodity category. That typically occurs when commercial production of a new commodity or one previously included in a miscellaneous category becomes significant enough to report individually in a county. Meadowfoam, grown for its seed-oil, is a good example.

Meadowfoam for seed was created as a separate commodity in the 2006 crop-year. For many years, seed estimates were included in miscellaneous field crops. However, in 2006, production had risen to about 3600 acres of seed harvested in five Willamette Valley counties — an estimated farmgate sales of \$1.8 million. This level of production was expected to continue.

OAIN Databases Commodity Grouping & Numbering System

The OAIN System assigns a unique number to each commodity produced in Oregon. The commodity is then assigned to one of nine series (groups). Each commodity has a number which fits into the range below:

1000 Grains	4000 Field Crops	7000 Vegetables & Truck Crops
2000 Hay & Forage	5000 Tree Fruits & Nuts	8000 Specialty Products
3000 Grass Seed & Legumes	6000 Small Fruits & Berries	9000 Livestock & Poultry

As an example, the 1000 series for grains contains:

1110 Wheat 1120 Barley 1130 Oats 1140 Rye 1150 Corn for Grain 1160 Other Grain

This listing, in greater detail, is available in the Database Reports section of this paper starting on page 5.

OAIN Databases County Districts

There are 36 counties in Oregon. The OAIN county database divides these counties into the following districts:

Willamette Valley: Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington & Yamhill.

Coastal: Clatsop, Columbia, Coos, Curry, Lincoln & Tillamook.

South Western: Douglas, Jackson & Josephine.

North Central: Gilliam, Hood River, Morrow, Sherman, Umatilla, Wasco & Wheeler.

Eastern: Baker, Malheur, Union & Wallowa.

South Central: Crook, Deschutes, Grant, Harney, Jefferson, Klamath & Lake.

Confidentiality Rules

Anyone may enter as a guest without a password and see all of the information that is not confidential, the upper tier of the database. Those estimates which are confidential reside in the lower tier of the database and are indicated in database output tables by labels such as “undisclosed.” OSU protects proprietary information provided by our clientele who rightfully assume confidentiality when personal or business information is provided during data gathering.

The OSU Extension Economic Information Office has adopted the same standards as NASS with regard to confidential estimates. If a number represents less than three producers or if one producer accounts for 60% or more of that number, the estimate will not be released to the public or any industry participant. Summary numbers are released only when proprietary information is concealed within total numbers.

These standards may necessitate hiding some estimates which would normally be released, but can't be to prevent one calculating the confidential information. As an example, small county production that isn't confidential may be included in a regional “other” category for the commodity along with the estimates from another county which are confidential. That effectively hides the confidential information while hopefully withholding a minimal amount of non-confidential information.

In some cases a commodity may be confidential throughout the entire state. In that case, those numbers are included in appropriate regional and state totals for combined commodities. The processed vegetable industry is a good example. Its estimates are carefully merged into sector estimates to hide proprietary information.

Faculty Estimation Procedures

Typically, faculty who provide OAIN estimates work-with or have personal knowledge-of specific ag commodities in the counties that they serve. In some cases that is a statewide assignment. From personal observation, contact with industry leaders, review of data sets prepared by government agencies or industry groups, and contacts with value added sectors, faculty prepare their estimates of harvested acreage or number of head, yield per acre, price per unit harvested, and percent of production sold. Planted acreage intended for harvest in future crop years or crops destroyed by adverse growing conditions are not included in our estimates.

Change over time can be tracked, commodity-by-commodity, county-by-county. This is one of the strengths of the OAIN Database. The description of trends may be more meaningful than the absolute values for a particular year. Examining a longer-term time series permits assessment of emerging and declining commodity production, trends in geographical location of production, as well as yield and price trends.

Estimates in the OAIN Database should be regarded as the best judgments of our faculty in the field. Occasionally, the difference between estimates reported by OASS and OAIN are questioned. In some cases, differences are due to the definition of the commodity being estimated. In other cases it is related to the results of two different estimating procedures.

OASS is an integral part of USDA's network of state and regional NASS offices. Their charter is to collect statistical information based on NASS procedures that will allow their statisticians to make judgments on statewide production and value estimates for selected agricultural commodities. The rules of statistical inference are at the heart of OASS estimates. In most cases, their samples are too small to make county estimates.

Neither estimation through the rules of statistical inference nor professional best judgment estimation results in the "true" number. Even a detailed ag census involves an abundance of statistical estimation. Some refer to the "real" number as the true, but inevitably unknown value. Others, in perhaps a slightly irreverent way, will say that "only God knows the number and He isn't telling."

OAIN Database Estimates: Preliminary and Revised

The OAIN Database is very much a live entity. New information may warrant changing estimates. More typically, the most current two or three years are frequently subject to change as historical information becomes available. However, revisions are entered into the database whenever new information is discovered.. The intent is that the database most accurately reflect the best judgments of OSU faculty at any point in time. This maintains the integrity of our entire database.

OAIN estimates are provided by our faculty on an accrual basis. That means that price estimates are based on a judgment regardless of when the commodity is used or sold. Some commodities are expected to be

sold immediately after production. Others may take a year or more to sell all that is produced in a given production year. For the year of production, our faculty make a judgment about what the overall price will be for the commodity. The revision process permits updated estimates as additional information becomes available.

State and County Charts

Charts are prepared in EXCEL to present a summary of the current year's value of sales. It is accompanied by a line graph which presents the most recent 10-year period of crop, livestock and total sales for the county. Special care is taken to hide confidential estimates in these charts. This permits interested media outlets to use them in reporting, while protecting confidential proprietary information.

A newer feature on the OAIN website homepage makes it easy to download our OAIN county and statewide charts, going back to 2002, as PDF files. New charts are upload as they are completed and revisions to older charts can be made efficiently. To access all of our uploaded charts, from the homepage, just click on the County/Statewide Charts button.

Preparation of Special Report 790 and Related News Articles

Each year Extension's Special Report (SR 790), Oregon County and State Agricultural Estimates is revised. To see revisions going back to 1997, click on the Ag Summaries (SR 790) button on the OAIN homepage. You can also get to these PDFs by clicking on the Commodity Data Sheets button and then clicking on All Commodity Summaries.

The SR 790 publication series is the foundation for distribution of information generated in our annual Extension county ag estimates project. Some of the most interesting changes since the previous report are highlighted and economic analysis for the factors behind those changes are provided. All of this information provides the basis for press releases via the OSU News Service. Podcasts are made available and can be accessed through the EESC homepage on the OSU website.

SR 790 is typically updated each year in February to reflect the preliminary estimates from the crop and livestock production in the just-completed year. The other commodity reports are updated as resources become available to do so. Like many other reports, SR 790 is presented as a PDF.

The typical SR 790 format is a pie chart and tables showing the distribution of crop and livestock preliminary gross sales for the latest year. Total preliminary gross sales estimates for all crops and livestock by county are shown for the latest year and percentage changes in commodity groups compared to the revised estimates from the previous year are presented. Gross sales estimates for the top 80+ commodities are shown along with revised estimates for the previous two years. Current-year production and value estimates for the major commodities and commodity sub-groups are presented. In addition preliminary crop acreage harvested and gross farm sales estimates for each major commodity grouping are shown by county and regional area.

Database Reports

Generating Queries and Reports from the OAIN Database is an easy, menu-driven process. Downloading to a computer can be either as output on a computer's monitor or as an EXCEL spreadsheet. If you login

as a guest, everything generated is public-knowledge estimates. You will see summaries of protected information which hide individual proprietary estimates. Totals and subtotals will include proprietary estimates when proprietary estimates are protected.

As a general rule you will see buttons at the bottom of each page which will help you to move through the process of building your table. Clicking "Next" moves you to the subsequent step in the process. The "Back" button moves you to the immediately previous step you completed in case you want to check or change what you have done at that point in the process. Clicking on "Finish" tells the system to prepare what you have specified; it will be displayed and will be printable at that point if you wish to do so. The "Home" button deletes what you have done and returns you to the original menu for the creation of another table if desired. By clicking on Exit OAIN System, you will be logged-off.

The following is a brief description of the OAIN Database system features. Just click on any of these and it will generate a report as the last step in the drop-down procedures. Other than the report/query tab, all the reports are formatted by the system without user input:

User Defined Report/Query This creates a table that you specify for selected commodities, counties, years and data types. In working your way through the drop-downs, you come to an Output Options Screen. The Output Style box toward the bottom defaults to downloading your table onto your computer screen. If you wish to have the table downloaded as an EXCEL spreadsheet, click on Comma Separated Values. That is a rudimentary EXCEL spreadsheet which can be easily saved using the EXCEL version currently being used on your computer.

Agricultural Commodity List (Statewide). This gives quick reference to all the commodities which were estimated in the year specified. In some years there is no commercial production for commodities that are normally produced in a county. In recent years, several commodities have been added.

Commodity Report (by County). Given a particular year and commodity selected, estimates are shown county by county within each region of Oregon.

Commodity Report (District Summary by Year). For a given commodity, state district and combination of years, the totals and weighted averages for all commodity estimates in the database are shown for each year requested.

Commodity Report (Statewide Summary by Year). This will allow you to see the statewide totals and weighted averages for the commodity chosen and all years that you select.

Commodity Group Report (Statewide Summary by Year). Each commodity has a unique number that fits into a group number series which is detailed in the List of Commodity Groupings, below. This tab, for a selected group and specified years, provides totals and weighted averages for all the estimates in the database.

County Report. For as specified year and county, commodity estimates will be displayed by commodity group.

Estimated Acreage Summary Report (by Selected County). For a specific county and selected years, total acreage by commodity group is presented.

Gross Farm Sales Report (by County and District, Statewide). For a specified year, crop, livestock and total value of sales are presented for each county within each region as well as regional and statewide totals.

Gross Farm Sales Report (by Selected County). For a given county and selected years, gross farm sales are totaled by crop series and livestock sector; subtotals for all crops and livestock are provided as well as county totals.

Harvested Acreage Summary Report (Statewide). For a given year, provides total number of acres in each county by group series; regional and statewide totals are also provided.

List of Districts/Counties. Each county is assigned to a district. This feature allows you to sort them in combinations of your choice.

List of Commodity Groupings. Each commodity is numbered to fit into one of these series:

1000 Grains
2000 Hay and Forage
3000 Grass and Legume Seed
4000 Field Crops
5000 Tree Fruit and Nuts
6000 Small Fruit and Berries
7000 Vegetable and Truck Crops
8000 Specialty Products
9000 Livestock and Poultry

Top 5 Commodities List (by County). For a selected year and counties selected, the top five value of sales commodities and dollar amounts are shown for each county.

Top 10 Commodities List for Oregon. For a given year, the statewide total value of sales for the top 10 commodities are shown in descending dollar order.

Top 50 Commodities List for Oregon. For a given year, the statewide total value of sales for the top 50 commodities are shown in descending dollar order.

Accessing Other OAIN Features

The OAIN homepage green buttons provide access to everything else that is in the OAIN system. Below are brief descriptions of the features that are additional to those related to the OAIN Database. At any time, while you are in the OAIN system, you may click on the green buttons to leave what you are doing and move into another section of the OAIN website.

Commodity Data Sheets

Commodity Data Sheets provide access to all of the sheets that are prepared in the department's Extension Economic Information Office — more than 40 different reports. They provide summary estimates reflecting selected commodities and commodity groups for principal county, state, regional and

national statistics. There are sheets for selected berries, tree fruits and nuts, horticultural crops, field crops, vegetables, grains, hay, grass seed, and livestock & livestock products. In addition there are a number of links in each category to USDA and industry sources for additional information.

By clicking on each commodity sector you will see specific commodity and commodity summary sheets which are prepared by our Economic Information Specialist. Just click on the year that interests you. The sheets typically contain multiple years and include revisions entered for previous years. Most of them contain both OASS and our OAIN estimates.

As an example, click on Berries and then on All Berries. This sheet provides gross sales estimates for the total of eight major berry crops in Oregon over six selected years. It also tracks total statewide production for each major berry crop from 1945.

As another example, click on Vegetables and then Snap Beans for Processing. The production, utilization, grower price and value of production over five years are provided for Oregon, other major producing states and the U.S. as a whole. Up until the 2000 version the sheet, harvested acreage, yield, production and value of sales were provided over four years for the major production counties in Oregon. Since that time, our confidentiality rules have prevented publication of that portion of the commodity data sheet. However, we were able to continue reporting statewide production and sales estimates for Oregon. That series, for selected years, goes back to 1930.

Enterprise Budgets

The Oregon Agricultural Enterprise Budgets that we have available on-line can be obtained by clicking the Enterprise Budgets button. Clicking on a region of the state map will show you all the budgets that we have available for that area. Or clicking on the county, commodity and the publication date boxes will reveal which budgets are available. If you have a specific EM publication number, that will take you more directly to the budget you are wanting.

Many of the budgets are PDF files. In some cases you will also see an XLS format which you may click to obtain an EXCEL spreadsheet for the budget. This allows you to do what-if-games with respect to changes in prices, yields and costs — directly on your computer. A number of budgets have both formats available. For more information on our budget series, there is a hot link to our Extension Farm Management Specialist who manages the series of budgets that AREc has available.

AgTools for Managing Risk and Ag Value Added Buttons

These are newer features of the Project which were added in 2007 to the OAIN homepage. We have the flexibility to add new material as warranted. As an example, there has been some discussion about adding a fisheries database along the lines of the OAIN Database.

AgTools for Managing Risk provides a software resource for agricultural producers who manage a wide variety of agricultural business risk: financial, marketing, production, and human resources. These decision-making tools are designed to help entrepreneurs make better decisions about identifying and managing those risks in their crop enterprises. For more information on these analytical resources, contact Clark Seavert, Superintendent & Staff Chair at our North Willamette Research & Extension Center. His e-mail address is clark.seavert@oregonstate.edu and his phone is 503-678-1264.

Ag Value Added is a link to a publication which provides first-handler estimates for Oregon crop and livestock sectors. It is based on 2005 OAIN Database estimates. There is also a link to a previous publication that utilized 1992 estimates. Access is also provided to OSU Extension publications which provide information about how the entire agricultural sector of Oregon, farmgate-to-table, impacts Oregon's economy as a whole.

Extension Education Materials

This is a link to the EESC inventory of publications and further links to related websites. When you click on this button, you will see a screen that allows you to access all of the educational materials that OSU Extension has available on-line. The topical areas go well beyond agriculture, business and economics. These resources include; publications, videos, computer software, and other miscellaneous items.

Other Resources

Clicking on this button will bring up a listing of links on your screen — grouped by type. You can get access to a wide variety of publications, enterprise budgets prepared by other state Extension programs, and a wealth of USDA information on general ag economics, statistics and markets.

As an example, if information was desired on numbers and capacity of water wells in Oregon or on irrigation methods, a good place to start would be the Statistical Sources button which provides access to the Census of Agriculture estimates prepared by OASS. Likewise, information desired on Oregon's wine industry from periodic surveys completed by OASS can be seen by clicking on Oregon Agricultural Statistics Service inside the Statistical Sources button. Once connected to the OASS website, just click on the publications drop-down at the bottom of their homepage. There are a number of surveys which are available for downloading.