



## ***Trends in Organic Tree Fruit Production – Dec. 2000***

David Granatstein  
Center for Sustaining Agriculture and Natural Resources  
Wenatchee, WA

Organic farming in Washington State has grown dramatically in size and scope during the 1990s. Two main factors are responsible: steady growth in the markets for organic foods have maintained a premium price to growers, and growers considered organic production as a way to prepare for loss of production tools such as pesticides. The advent of pheromone mating disruption as an effective and available control technique for codling moth, the primary pest of apples in Washington, removed a major barrier to organic production. As a result, organic apple acreage has increased dramatically. Many growers are considering or implementing organic production to offset low apple prices in the conventional market. However, a major increase in supply of organic fruit could easily overshoot demand and depress organic fruit prices, as happened in 1990 after the Alar incident.

### **Trends in Farm Numbers and Acreage**

Washington State is the largest producer of apples, pears, and sweet cherries in the U.S. Based on the data we collected, Washington State appears to be the leader in organic apple acreage, followed closely by Arizona and California (Table 1). Organic apple acreage has more than doubled from 1800 acres in 1998 to over 4200 acres in 2000, with another 4000 acres in transition to organic.

From discussions with organic certifiers across the country, the semi-arid regions of the West have a major climatic advantage for producing organic tree fruit. Both Michigan and New York are major apple producers but have virtually no organic acreage due to difficulties controlling pests (both fungal and insect).

The trends in organic tree fruit production in Washington State over the past 10 years are illustrated in Table 2. The effect of the Alar incident is obvious in the Washington data. Growers were motivated to try organic production in 1990 due to low demand and prices for conventional apples. At the time, the organic program rules required only a 1-year transition, but the rule was slated to change to a 3-year transition over the next 2 years. Thus, many growers withheld conventional treatments after harvest in 1989 and, by following the organic production regime, had a certified crop by autumn 1990. Significant attrition of these new organic growers occurred in 1991 and 1992, mainly due to problems controlling codling moth in apples and to reduced prices for organic apples, caused by the rapid increase in supply. Washington organic pear acreage also increased after 1990 and has not shown a drop-off. This may be due to a few larger pear growers who have maintained stable production.

While the growth of organic tree fruit acreage in Washington has been substantial, it still only represents a small fraction of the total fruit acreage (Table 3). The percentage of apples could increase appreciably if total apple planting slows due to poor economic conditions and if all the

acres in transition do become certified. Total cherry acreage is rapidly increasing in the state. However, cherry fruit fly control remains a major barrier to expansion of organic cherry production. The availability of new organically approved pest controls for cherry fruit fly in the next few years could remove this barrier.

### **Fruit Varieties**

In 1998, the WSDA began to request specific fruit varietal information as part of the organic farm application. These data are presented for apples and pears. Red Delicious is the leading organic apple variety by acreage, and will continue to be so based on the large acreage in transition (Table 4). No other clear trends emerge. Conversations with growers indicate that Gala and Golden Delicious are relatively amenable varieties for organic production, while Fuji can be problematic. To date, no specific varieties have been developed for organic production. Scab-resistant varieties from the East Coast (e.g., Liberty) are available but generally not necessary in the semi-arid fruit districts. British Columbia organic growers report that they are experimenting with a new apple variety that shows particular promise for organic production.

For pears, the d'Anjou variety, a winter pear, is grown on the majority of organic pear acreage (Table 5). With soft fruit, growers are transitioning more acres to cherries, but little new acreage appears to be coming in for the other fruit types. Not all cherry growers reported varieties, but for those reported, Bing was the dominant variety.

### **Markets for Organic Food**

For the past decade, the steadily increasing demand for organic fruit has generally exceeded the increasing supply. The notable exception was in 1990, when there was a huge influx of new acreage following the Alar incident. Prices dropped dramatically as supply exceeded demand. On average, sales of organic food have increased from 20-30% per year for the past six years.

Certain food categories have seen growth far above the average. For example, branded products have grown by over 40% per year, and organic dairy, grain snacks, and candy grew by nearly 90% in 1998. Part of the growth can be attributed to the expansion of natural food supermarkets. The US produce industry estimates that organic produce sales are roughly 2% of all produce sales, equaling about \$700 million per year. With the growth of organic product volume, the produce industry has developed good marketing and distribution systems for organic fruits.

According to a national consumer survey done by The Hartman Group in 1996, about 7% of the population has attitudes that profile a "core organic" purchaser. Currently, only 2% of food sales are organic. Thus, there may be another 5% of market share expansion of organic with no major shift in consumer attitudes. Many marketing experts predict that organic sales will not likely exceed 10% of the market share. However, further food safety stories and reductions in price for organic products could easily raise this ceiling. Most consumers indicate price sensitivity around a 10-15% premium for organic foods. If more large farms come into organic production, it is likely that the premiums may drop, thus further stimulating demand.

In addition to fresh markets, there are active processor markets for both peeler grade and juice grade organic fruit. The juice market has been relatively strong. Expanding sales of organic baby food have created good processor markets as well. Organic prices nearly always exceed conventional market prices.

With the dramatic increases in organic tree fruit acreage, especially apples, it is possible there will be downward pressure on prices, especially for some varieties such as Red Delicious. Consumers are reporting general dissatisfaction with Red Delicious and may choose only to spend a premium price for organic apples of another variety. Processors often require specific varieties and will pay a premium to acquire them. Some growers market through more specialty channels and have good consumer loyalty. A few growers pack their own fruit, while most use a commercial packinghouse. Several organic brokers are available for marketing services as an alternative to a standard sales desk.

As market pressures increase, a few organic growers are looking for ways they can further differentiate their fruit. Strategies include local and direct markets, gift packs, unusual varieties, and additional labels that further address environmental and social issues not covered by organic certification.

As organic farming expands, growers will face more pressure to make their products into a commodity, with the associated pressures to get larger. Existing organic farms of several thousand acres prove that it can be done; however if supply begins to exceed demand, the price premium can be expected to erode. Worldwide production is increasing (Table 6). Smaller growers will be in a better position to take advantage of other attributes of their farms and products and search out markets that will pay a premium. Thus, it is likely that mid-sized organic growers will feel the most pressure, just as with their conventional counterparts.

Table 1. Estimated U.S. organic tree fruit\* acreage in 2000.

	<b>Apples</b>	<b>Pears</b>	<b>Cherries</b>	<b>All Fruit</b>
Total U.S.	12,700	2,645	555	17,873
Washington (certified)	4228	619	193	5232
Washington (transition)	3997	1040	165	5253
California	1139	371		2748
Arizona	2000 (est.)		30	2060
Colorado	431	115	142	841
Oregon	350	500	25	1180
Wisconsin	300			300
Pennsylvania	150			150
Virginia	50			54
Michigan	20			20
New York	35			35

\* only includes pome fruits and stone fruits

Table 2. Washington organic tree fruit acreage – 1988-2000.

	<u>Apple</u>	<u>Pear</u>	<u>Soft fruit</u>
1988	109	29	31
1989	365	31	78
1990	1632	164	261
1991	1242	344	187
1992	857	335	166
1993	585	122	95
1994	690	312	123
1995	704	312	120
1996	1085	361	145
1997	1634	411	194
1998	1801	448	194
1999	2334	456	--
2000	4228	619	385

Table 3. Organic orchard acreage as a percent of total Washington orchards.

	<u>Apple</u>	<u>Pear</u>
1996	0.68	1.49
1997	0.96	1.68
1998	1.05	1.84
1999	1.33	1.87
2000	2.42	2.54
2002*	4.70	6.80

\* assuming all acres currently in transition do become certified.

Table 4. Organic apple acreage in Washington State, by variety – 2000.

<u>Variety</u>	<u>Certified</u>	<u>Transitional</u>
Braeburn	186	165
Fuji	425	606
Gala	596	577
Granny Smith	452	625
Golden Delicious	603	304
Red Delicious	1512	984
Cameo	93	350
Pink Lady	83	196
Ginger Gold	67	29
Jonagold	57	86
Other	209	71

Table 5. Organic pear acreage in Washington State, by variety – 2000.

<u>Variety</u>	<u>Certified</u>	<u>Transitional</u>
D'Anjou	313	470
Bosc	136	205
Bartlett	111	312
Asian	45	9
Other	16	44

Table 6. Estimated worldwide production of certified organic apples and pears – 2000.

	<u>Apple</u>	<u>Pear</u>
U.S.	8350	1630
Canada	800	60
Europe	8675	3665
Argentina	805	920
New Zealand	1200	--
Total	19,830	6,275