

LESSONS ABOUT PEARS FROM AROUND THE WORLD

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CONFERENCE THEMES

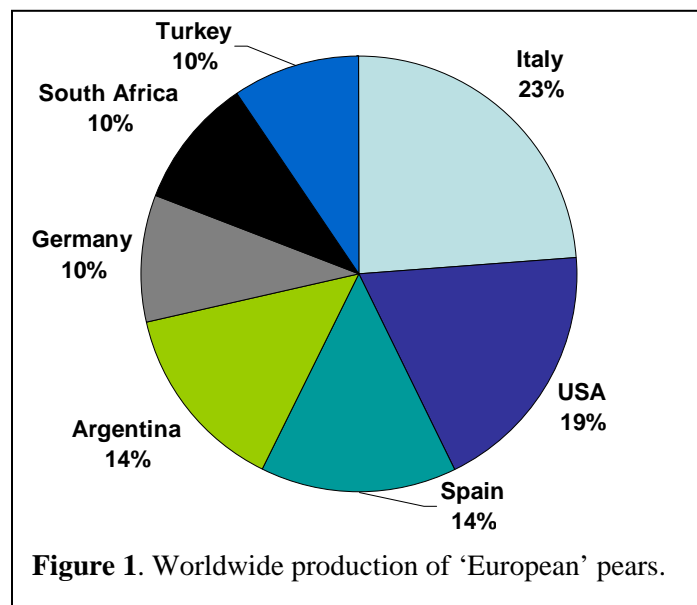
I was privileged to attend to 10th International Pear Symposium held in May 2007 in Lisbon, Portugal. The symposium was attended by 230 participants from 30 countries who gathered together to report on their research primarily on ‘European’ pears. There were also many European pear growers in attendance. The conference themes were standard fare for most crop conferences and included: molecular biology, biotechnology, nutrition, rootstock breeding, orchard design, tree training and plant protection. I was most interested in postharvest biology and variety selection and breeding.

Three timely themes contained reports from a number of countries. These included fruit set and growth regulation, climate change and its effect on pear production, and variety performance and breeding. In fact the last topic was reported on by scientists from 15 countries.

Pear production around the world is changing rapidly as far as tree architecture is concerned. Large vase shaped umbrella trees are a thing of the past in most all major pear producing countries. However, the introduction of new varieties is coming along very slowly.

WORLDWIDE PEAR PRODUCTION

It is useful to look at pear production around the world by district and variety. World pear production is dominated by Asia, where more than two thirds of all pears are produced (13 million metric tons). As expected, China has the lion’s share of the world’s pears, at 58%. There has been a rapid increase in pear production in China. The vast majority of pears produced in Asia are not of the ‘European’ type; and in the rest of the world only the ‘European’ varieties are cultivated. The top regions of pear production outside of Asia are in Italy, the United States, Spain and Argentina (Figure 1).



Europe

In Europe the volume of pears is approximately 2.5 million tons annually with Italy, Spain, Germany and France the top production districts. Italy produces slightly less than one-third of the total European pears produces and production volumes are stable as it is in Spain. Pear production is increasing in the Netherlands, Belgium and France.

It is natural to assume that pear producers in the rest of the world utilize the same varieties as in the Pacific Northwest. However, Anjou pears are produced in any commercial volume in only two regions: Argentina, Washington and Oregon! In Europe, the major variety is ‘Conference’ and its early ripening cultivar ‘Corina’. These varieties are not produced in commercial volumes outside of Europe.

South America

The major commercial districts in South America are Argentina’s Rio Negro Valley in the west of the country, where it looks much like central Washington State and Chile. Argentina produces over 500,000 tons annually and exports 85% of the crop to Brazil, Europe, Russia and the United States. Argentina produces Bartlett, Packham’s Triumph and Anjou. Chilean production is declining (210,000 tons). Chile relies upon Packham’s Triumph and Bosc and they export primarily to Europe.

Africa

South African pear production is large (300,000 tons) and they export 45% to Europe, Asia, Canada and some to the United States. Their varieties include Bartlett, Packham’s Triumph, Bosc, Abate Fetel and Comice. They are increasing plantings of Forelle, and Abate Fetel.

Oceania

In Oceania, Australia produces 150,000 tons, which is decreasing and export only 8% of the crop to South East Asia. They grow Bartlett and Packham’s Triumph. New Zealand produces less than 20,000 tons but they export about one-third of the total crop to the United States and Europe. Scientists in New Zealand have developed a russeted Comice, called Taylor’s Gold which is one of the most successful new pear cultivars.

PEAR VARIETIES

The geographic summary presented above shows that there is great interest in pear production by all the principal tree fruit districts around the world. Thus there is competition. However, it is instructive to know that all the major varieties of pears were first released two centuries ago! In apples, we refer to varieties this old as ‘heirloom’ varieties.

Virtually all the pear varieties are ‘heirloom’ (Table 1). It is thought that Forelle pears were first cultivated ‘commercially’ in the 1600s! The major commercially produced pears are not pretty, even in shape or color. It is curious to me why little progress has been made in developing new pear varieties. In apples, the introduction of new varieties was stimulated by the use of highly precious dwarf rootstocks.

Table 1. Pear variety and release date.

Variety	Date
Forelle	1600’s
Rocha	1836
Comice	1849
Passe Crasanna	1855
Bosc	1871
Dr. Jules Guyot	1871
Abate Fetel	1876
Nijisseki	1898
Pinguoli	1921

THE PACIFIC NORTHWEST PEAR INDUSTRY

This brought to my mind a number of thoughts about the take home message from this international conference. West Mathison (Stemilt Growers) mentioned in a panel discussion earlier in the meeting that if there should be another terrorist strike on United States soil the border would lock down and the labor situation would be critical. Pear growers would be in an

especially sorry situation. What picker would be willing to climb down a 14-foot ladder with a heavy bag of pears when they could pick Gala apples from the ground? Here in the Pacific Northwest dwarf rootstock selection for pears has been limited by propagation problems and more importantly by fears of cold damage from low winter temperatures. Yet there are a number of available rootstocks that have been developed that have not been trialed that would provide dwarfing and still be cold hardy.

The Pacific Northwest's reliance on Anjou (67%), Bartlett (22%) and Bosc (14%) is reminiscent of the apple grower's reliance on Red Delicious. Although there are many alternative pear varieties grown other parts of the world, the Pacific Northwest pear industry remains reliant on these three varieties. I applaud the work being done at the Oregon State University's Mid-Columbia Research Station to evaluate new varieties of pears for the Pacific Northwest. Yet I do not see this type of activity being taken up by commercial producers.

The information obtained at this international conference cast new light on the northwest pear industry. In my opinion for long-term survival (and maybe even in the short term) the industry needs to launch rootstock trials to get a suitable dwarfing root that bears fruit soon after planting. Pedestrian orchards of pear trees need to be developed. At the same time it is critical to rapidly assess alternative pear varieties for their suitability to our climate and our consumer base. Sometimes it takes stepping back a few steps to gain perspective. International conferences provide a break in the daily routine to re-think where we are going. You are invited to the next pear conference which will take place in Argentina in four years.