

## Pacific Northwest Honey Bee Pollination Survey – 2005, Continued

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Within the PNW, tree fruits are the dominant crops for pollination income (see Table 2). In 2005 the combination of pears, sweet cherries and apples accounted for 58% of all reported rentals and 42% of all reported pollination income. Paradoxically, the single most important crop for PNW beekeepers is grown in California, *i.e.*, almonds. Almonds were responsible for 33% of all rentals and 51% of all rental income in the 2005 survey. Almonds consistently have produced a high average pollination fee; for 2005 the average was \$79<sup>40</sup>. Based on beekeeper reports for contracted pollination for 2006, almond rental prices are expected to remain at a level greatly elevated from the average prices of the previous decade.

In 2005 the combination of California almonds and PNW tree fruit accounted for 91% of all rentals and 93% of pollination income, which illustrates the dominance and importance of these crops for a commercial PNW beekeeper. All other PNW cropping systems that utilize honey bee pollination contributed only 7% of a beekeeper's gross pollination income in 2005.

In 2005, for crops pollinated in the PNW, squash & pumpkin seed provided the highest average fee at \$47<sup>10</sup> per colony rental. In terms of acreage, apples are the largest crop grown in the PNW and this is reflected by the large number of reported rentals (58% of all rentals and 42% of the total reported rental income.)

Berry crops (blackberries, raspberries and blueberries), are late spring to early summer bloomers and copious nectar producers (blackberries and raspberries). The 2005 average pollination fee for all combined berry crops was \$30<sup>20</sup>, a lower price than the average fee because beekeepers have an expectation that a honey crop will also be produced.

The average PNW commercial honey bee colony was rented 2.2 times in 2005 and this includes California almonds. This is a slight increase from the past several years. This statistic had been dropping since 1999 when the average number of rentals per colony was 2.8. Does this actually reflect the real world situation? Are commercial beekeepers concentrating on almonds and PNW tree fruit (which historically provide the major sources of pollination income) and reducing the number of colonies involved in minor crop pollination? At this time our data are not able to provide a reasonable answer to this question.

For the 2005 pollination season an average rental fee of \$51<sup>30</sup>, combined with an average of 2.2 pollination sets per colony, results in an annual per colony pollination income of \$112<sup>85</sup>, which is up significantly from that of the past few years. With the "average" commercial operation running 2,055 colonies, a hypothetical 2005 gross pollination income for the "average" commercial beekeeper was \$231,906.

The combined colony numbers from those commercial beekeepers who responded to the 2005 survey, (23,285 hives), represent about 20% of the USDA's estimate of colony numbers in Oregon and Washington. Therefore, if we multiply the total reported pollination income (\$2,684,713) by a factor of 5, we have a ball park estimate of the pollination income generated by commercial beekeeping in the PNW, *i.e.*, a regional pollination income of approximately \$13,000,000. This is far more than the normal "estimates" assigned to the bee industry by agricultural economists, who, for reasons unexplained, usually do not even include pollination rental income in their estimates of the beekeeping industry economic status. Pollination income in the PNW far exceeds the value of honey and wax sales for our regional beekeeping industry. Pollination rental income is frequently three to four times greater than honey and wax sales in any given year.

The 2005 survey asked commercial beekeepers to report the total number of full-time or part-time employees working for their operations. The figure for the "average" commercial beekeeping operation in 2004 was 2.9 full-time employees; for 2005 it is 3.4 employees. Another interesting way to look at this is to ask the question "what is the 'colony equivalent'", meaning what is the number of colonies necessary to hire one full-time employee? That figure is very close to 1,500 colonies/employee in both the years 2004 and 2005.

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