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A Guide to Estimate Compensation for Loss of a Single Avocado Tree

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This is the average value per pound of fruit paid to the grower during five year period 2004/05 – 2008/09. Data is supplied by the California Avocado Commission.

Estimation of compensation for loss of a single avocado tree involves several factors. The following example is intended to serve as a guide to calculate the value of a single tree lost due to accident, fire or any other cause. The figures in the example are averages and, can be modified if specific data is available.

1. The value of the crop lost during the period of re-establishment. Crop loss adjustment must be charged annually until the new (replanted) tree reaches the bearing level equal to the rest of the trees in the grove. To estimate the value of the loss, the following is required: the age of the tree, the yield per tree (the yield per acre divided by the number of trees per acre), the price per unit of product and the period of loss. For this study, the value of the crop is estimated at \$0.91/lb.

(http://www.avocado.org/growers/industry_data.php).

2. The cost of the tree removal and land preparation, including chipping of the older tree.
3. The cost of a new tree, planting and other miscellaneous costs that are incurred with new trees.
4. Additional special costs incurred for irrigation fertilization, weed control, pest control and frost protection may also be included. It is assumed the normal cultural activities for the other trees in the grove will support most activities for the replacement tree.
5. Compensation should be discounted since the owner of

the tree is paid now for income that would not be received until a future date. The present value of net annual loss reflects a five percent discount factor, representing present value of a future money at a compound interest. The discount factor indicated is the amount a dollar is worth in the future. For instance, a dollar received a year from today discounted at

5% is only worth \$0.95 today. Please note the value of the crop loss may be under or overstated depending on price fluctuation and yield variability, these are just averages. For the purpose of this example, assume the following: (1) a constant on-tree price of \$0.91 per pound, (2) a yield of 7,000 pounds per acre of avocados.

Compensation for Avocado Tree Loss												
Revised 2010												
Assumptions:												
	Age of tree in years			10								
	No. of trees/acre			100								
	Yield/acre (lbs) at age 10			7000								
	Yield/Tree (lbs) at age 10			70								
	On-tree price (\$/lb)			\$0.91								
Year after planting	0	1	2	3	4	5	6	7	8	9	10	Total cost
Yield per acre (lbs)	0	0	0	1600	2200	3000	3800	4600	5400	6200	7000	n/a
Yield per tree (lbs)	0	0	0	16	22	30	38	46	54	62	70	n/a
Tree removal and hauling wood to chipper	40											40
Replacement tree cost		22										22
Planting		5										5
Mulching, weed control		5	3	2	2	2						14
Value of crop lost**	\$63.70	\$63.70	\$63.70	\$49.14	\$43.68	\$36.40	\$29.12	\$21.84	\$14.56	\$7.28	\$0.00	393.12
Annual loss/tree	103.7	95.7	66.7	51.14	45.68	38.40	29.12	21.84	14.56	7.28	0	474.12
Present value of net annual loss /tree at 5% discount factor	103.70	91.14	60.50	44.17	37.58	30.09	21.73	15.52	9.85	4.69	0	418.98

**Value of crop lost=Yield at maturity (70 lbs/tree) minus yield per tree at redevelopment (years 3-9) multiplied by price (\$/lb)

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