

## Bowie Central Appraisal District

### Productivity Value for Beekeeping

Under Open-Space productivity valuation, values are calculated using a modified income approach to determine the per acre value. This is done using cash lease rates that are collected each year through surveys mailed to lessees. The challenge with determining a productivity value for beekeeping using the cash lease method is usually beekeepers do not lease the land on which the hives are located. In most instances, a property owner who has hives located on his land has an open-space valuation on their property.

Using the basic Income/Rate/Value (IRV) formula for developing an income approach to value, we developed a productivity value in beekeeping.

In Texas it is estimated that a hive will produce an average of 74 pounds of honey per year. With the assistance of local beekeepers we estimated an average of \$60 per hive of expenses per year. The average wholesale price for honey in 2011 was \$3.78 per pound. The following is Bowie Central Appraisal District's 2012 calculation.

<b>Total Income per Hive</b>	<b>74lbs. x 43.78=\$279.72</b>
<b>Total Expenses per Hive per year</b>	<b>\$60.00</b>
<b>Net Operating Income (NOI)</b>	<b>\$279.72 - \$60.00 = \$ 219.72</b>
<b>Productivity Values per Hive</b>	<b>\$219.72/.10 cap rate = \$2,197.20</b>

HCAD's degree of intensity is 6 hives on the first 5 acres with 1 hive for every 2.5 acres up to 20 acres. This would give you a range of 6-12 hives minimum requirement. The productivity value is applied on a per-acre basis; therefore, the following formula was used.

HCAD's minimum requirement on 20 acres is 12 hives. Therefore, the average hives per acres is  $12 / 20 = .60$  hives.

<b>Productivity Value per Acre</b>	<b>\$2,197.20 x .6 (minimum hives) = \$1,318.32 or \$1,318.00 per acre.</b>
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