

## **ARANSAS COUNTY 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 \$40 per hive of expenses per year. The average wholesale price for honey in 2013 was \$2.11 per pound. The following is Aransas County Appraisal District's 2014 calculation.

Total Income per Hive	$74 \text{ lbs.} \times \$2.11 = \$156.14$
Total expenses per Hive per year	\$40.00
Net Operating Income (NOI)	$\$156.14 - \$40.00 = \$116.14$
Productivity Value per Hive	$\$116.14 / .10 \text{ cap rate} = \$1,161.40$

ACAD'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 indicates a range of 6-12 hives as a minimum requirement. The productivity value is applied on a per-acres basis; therefore, the following formula was used.

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

<b>Productivity Value per Acre</b>	<b><math>\\$1,161.4 \times .6 \text{ (minimum hives)} = \\$696.84,</math> or <b>\$696.84.00 per acre.</b></b>
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