



Agricultural and Horticultural Update: Changes and Options

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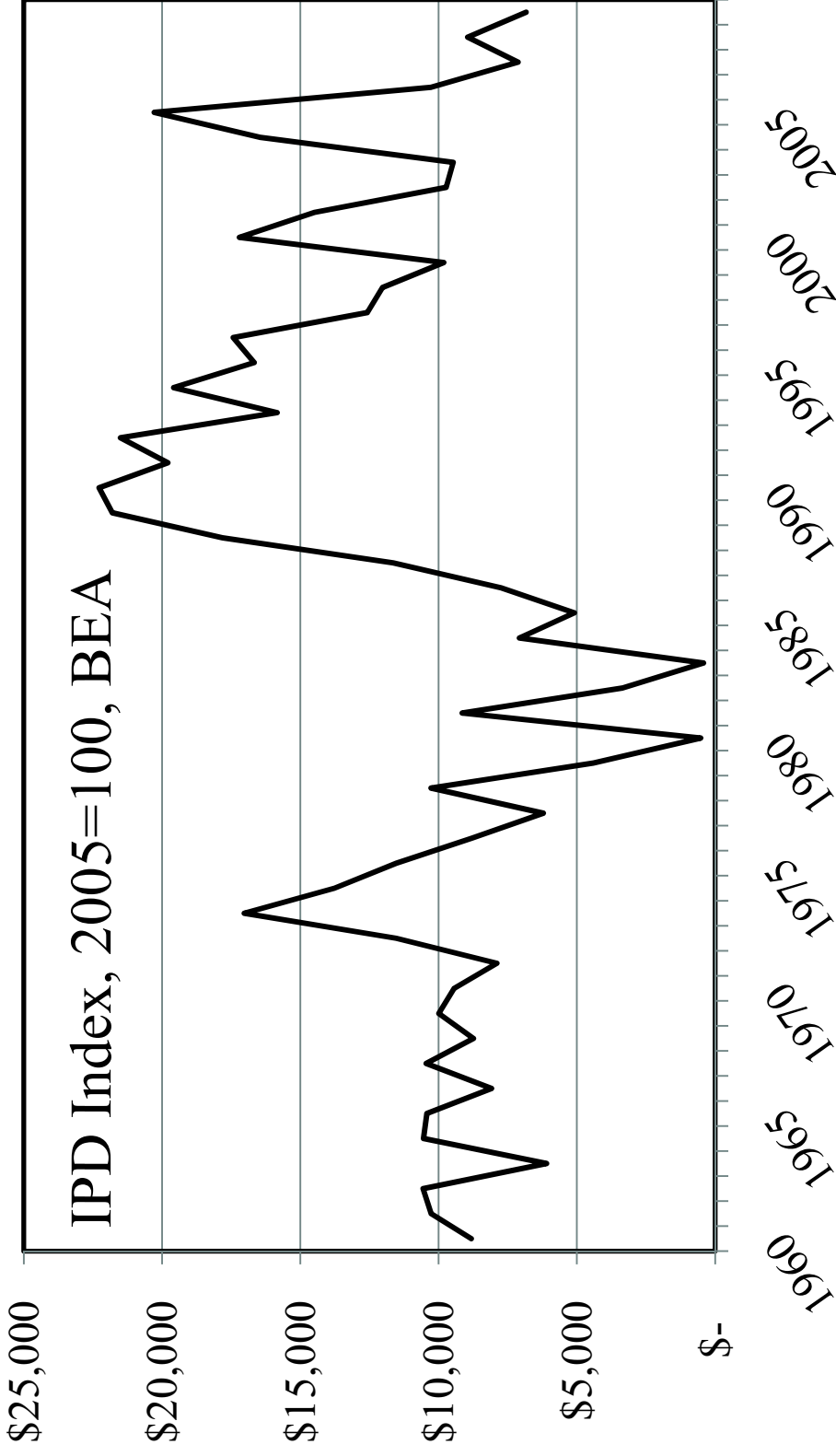
Objectives



- Current Status
- Description of methods
- Overview of agricultural and horticultural use values
 - What's changed?
 - Income Approach vs Rental Rate Approach
- Answer questions



Real Net Farm Income Virginia \$/farm



Data, Economic Research Service/USDA, years 1960-2009



Current Status TY2011



- **Agricultural and horticultural: 92 counties/cities**
- **Forest: 75 counties/cities**
- **Open Space: 53 counties/cities**



Overview

- Virginia use value taxation legislation was passed in 1972
- Virginia law allows for the preferential taxation of agricultural, horticultural, forestal, and open space land
- Eligible land in any of these categories can be assessed at the land's value in use (use value) as opposed to the land's market value



Overview (cont.)



- State Land Evaluation and Advisory Council (SLEAC) provides annual use value estimates for each jurisdiction in the program
- Responsibility for final value of assessment resides with the local assessing officer
- Buildings and other improvements “on the land” are assessed at fair market value



Two Approaches



Capitalized:

- Net income (Income Approach)
- Rental rates (Rental Rate Approach)



Income Approach

The Composite Farm



Jurisdiction's composite farm

- Considered only crops with 1 or more acres in the composite farm for each jurisdiction
 - Acres of crop \div number of farms \geq 1 acre
- Net returns/profits are based on the totals for the jurisdiction's composite farm



Income Approach

Crops in Model



Traditional		Added for TY2009/20010	
Alfalfa hay	Peanuts	Pasture	
Barley	Tobacco	Cucumbers	
Corn		Pumpkins	
Cotton		Snap Beans	
Hay (grass)		Sweet Corn	
Potatoes		Tomatoes	
Soybeans		Watermelons	
Wheat			



Income Approach

Data Sources



Only published secondary sources are used.

- 2007 Census of Agriculture - composite farm acres
- Virginia Cooperative Extension – budgets
- Farm Service Agency - Federal payments
- USDA-RMA – crop insurance, net proceeds
- USDA-NASS – yields and prices
- Virginia Department of Taxation - tax rates
- AgFirst – long and short interest rates



Reporting:
Table 2
Accomack
TY2011

1. No. of Farms = 248	Total Acreage	Composite Farm (Acres)	Estimated Net Return (\$/Acre)
2. Corn	32,670	132	\$15.72
3. Alfalfa	---	---	---
4. Hay	555	2	\$0.00
5. Wheat	13,235	53	\$36.34
6. Barley	---	---	---
7. Soybeans	36,928	149	\$30.16
8. Potatoes	1,568	6	\$1,214.59
9. Cotton	---	---	---
10. Pasture	2,325	9	\$21.43
11. Peanuts	---	---	---
12. Tobacco	---	---	---
13. Snap Beans	1,839	7	\$0.00
14. Cucumbers	D	---	---
15. Pumpkins	4	0	\$0.00
16. Sweet Corn	485	2	\$13.66
17. Tomatoes	D	---	---
18. Watermelons	13	0	\$0.00
19. <i>Double-Cropped</i>	<i>(-) 13,235</i>	<i>(-) 53</i>	
20. Totals	76,387	307	\$64.37



Income Approach

Basic Formula



$$\text{Use value} = \frac{\text{Net return}}{\text{Capitalization rate}}$$

Net Return Variables:

- Crop Prices
- Crop Yields
- Input Prices
- Federal Payments
- Crop Ins

Capitalization Rate Variables:

- Long-Term Interest Rates
- Local Property Taxes



Rental Rate Approach

- National Ag Statistics Service (NASS)
 - Collects annual cash rental rates for
 - Cropland non-irrigated
 - Cropland irrigated (very limited)
 - Pastureland
 - Developed methods for TY2010 sent values to COR under my name – informational values
 - SLEAC approved values for TY2011
 - Rental rate approach applies the same cap rates as the income approach

$$\text{Use value} = \frac{\text{Cash Rent}}{\text{Capitalization Rate}}$$



Income vs Rental Rate TY2011



Jurisdiction	Cropland \$/ac		Pasture Land \$/ac	
	<i>Income</i> (Average I-IV)	<i>Rent</i>	<i>Income</i> (Average V-VII)	<i>Rent</i>
Accomack	850	790	190	480 ^{ep}
Albemarle	80	210	30	200
Loudoun	30	330	20	300
Northampton	1,290	810	240	470 ^{ep}
Pittsylvania	120	290	50	240
Rockingham	430	650	150	450
Southampton	810	770	270	430
Warren	0	270	0	260
Washington	300	550	110	340

^{ep}Eastern District Combined pasture rent \$36 per ac



Virginia's Use-Value Taxation Program



Farm Example

- Consider a farm in Cumberland County in TY2011 with 400 acres (150 ac cropland, 150 ac pastureland, and 100 ac timber land)
- Comprised of
 - 100 acres (Class I land),
 - 50 acres (Class III),
 - 150 acre (Class IV), and
 - 100 acres (Good forest)
- Assume that the **Fair Market Value** of the land is **\$1,500/acre**
- Use-value assessment values are based on 2 approaches
 - Capitalized income (Ag, hort, and forest)
 - Capitalized rental rates (Ag)



Virginia's Use-Value

TY2011 Values for
Cumberland County



Income Approach: 2011 Estimated use values of agricultural land (\$/acre)											
	<i>Cropland</i>					<i>Pastureland</i>					
	I	II	III	IV	AVG I-IV	V	VI	VII	AVG V-VII		AVG I-VIII
<i>W/Out Risk</i>	190	170	130	100	140	80	60	40	50	120	10
<i>W//Risk</i>	180	160	120	100	130	70	60	40	50	110	10

Rental Rate Approach: 2011 Estimated use values of agricultural land (\$/acre)	
<i>Cropland</i>	<i>Pastureland</i>
300	220

2011 Forest Land Use Values	Fair	Good	Excellent	Non-Productive land
Cumberland County	340	471	682	100



Income Approach

Farm Example

Income Approach TY2011	Fair Market Value (Estimated)
Class I 100 acres (\$190/acre) = \$19,000 Class III 50 acres (\$130/acre) = \$6,500 Class IV 150 acres (\$100/acre) = \$15,000 Good forest land 100 acres (\$471/acre) = \$47,100	400 acres (\$1,500/acre) = \$600,000
Total Assessment (using land classes) = \$87,600	Fair Market Value = \$600,000
Total Assessment (using AVG \$140/acre) = \$89,100	
Fair Market Assessed Value Use-value Assessed (income) Value Deferred Value	\$600,000 <u>-\$89,100</u> \$510,900



Rental Rate Approach



Farm Example

Rental Rate Approach: TY2011	Fair Market Value (Estimated)
<p><i>Cropland 150 (\$300/acre) = \$45,000</i></p>	
<p><i>Pastureland 150 acres (\$220/acre) = \$33,000</i></p>	
<p><i>Forest 100 acres (\$471/acre) = \$47,100</i></p>	<p><i>Fair Market Value \$600,000</i></p>
<p><i>Total Assessment (Rental rates) and Good Forest = \$125,100</i></p> <p style="text-align: right;"> <i>Fair Market Assessed Value \$ 600,000</i> <i>Use-value Assessed (rental) Value <u>-\$ 125,100</u></i> <i>Deferred Value \$ 474,900</i> </p>	



Deferred Taxes

Farm Example

	Fair Market Value	Income Approach	Rental Rate Approach
Total Values	\$600,000	\$89,100	\$125,100
Property Tax Rate	\$0.68/\$100		
Property Tax	\$4,080	\$606	\$851
Deferred Taxes for 5 years	\$3,474		\$3,229



Virginia's Use-Value Taxation Program



Farm Example

Note:

- If the land contained farm structures, e.g., a poultry house and/or grain bins, they would be taxed at their fair market value. Use-value assessment only applies to land.
- Farm dwellings and lots are taxed at fair market value.

Assumptions:

- Owner meets all eligibility requirements for use-value assessment.



Virginia's Use-Value Taxation Program



Orchard/Hort Operations

- **Horticultural** is defined as only apples and other tree fruit (pears and stone fruit)
- Add-on values apply to apples and other tree-fruit
- Method for estimating net returns to orchard operation was developed in 1977



Useful Reports

- VA procedures manual 2011
<http://pubs.ext.vt.edu/446/446-011/446-011.html>
- See the Fall 2011 issues of the Journal of *Public Budgeting & Finance* for an article on use value assessment
www.blackwellpublishing.com/journal.asp?ref=0275-1100
- Economic Benefits of Farmland Preservation: Evidence from the United States. Lori Lynch and Joshua M. Duke - WP 07-04
<http://ageconsearch.umn.edu/bitstream/7342/2/wp070004.pdf>



Useful Reports



- *Why Use-value Estimates Differ: Comparing Halifax and Pittsylvania Counties*
usevalue.agecon.vt.edu/publications.htm
- *Use-Value Taxation in Virginia: A Brief Discussion*
usevalue.agecon.vt.edu/publications.htm
- *Results of the 2003 Agricultural and Horticultural Use-Value Taxation Program Survey*
usevalue.agecon.vt.edu/publications.htm
- *Measuring the Impact of Use-Value Taxation for Northampton County, Virginia*
usevalue.agecon.vt.edu/publications.htm



Virginia's Use-Value Taxation Program



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Thanks!
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Questions?

For more information see
usevalue.agecon.vt.edu