



A Citizens' Guide to The Use Value Taxation Program in Virginia

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The purpose of this publication is to help farmland owners, farmers, and other interested citizens to better understand the use value taxation program in Virginia. The current farm crisis coupled with rapid growth at the rural-urban fringe has caused many to ask "How can we keep agricultural land in production?" Some are looking to their local governments' land use and taxation policy for solutions that might assist in answering this question. A local tax policy option that has been exercised widely in Virginia is use value taxation.

Since its 1972 inception into Virginia law, the stated intent of use value taxation has been to foster "the preservation of real estate for agricultural, horticultural, forest and open space use in the public interest." This is to be accomplished through the "classification, special assessment, and taxation of such property in a manner that promotes its preservation to help foster long term public benefits."¹ Virginia law allows for eligible open space, forested, and agricultural land to be taxed based on the land's value in use (use value) as opposed to the land's market value. Currently, agricultural land is assessed at its value in agricultural use in 69 counties and 18 cities in Virginia that have adopted local use value ordinances and in several other localities without use value taxation ordinances that have agricultural districts.

Virginia is not alone in providing preferential tax treatment of agricultural land. All fifty states have land use programs that provide property tax relief for agricultural land. These programs include the purchase of development rights, transfers of development rights, the donation of conservation easements, and use value

taxation. Though the specifics differ substantially, these programs all have in common the consequence of reducing assessment values for agricultural land to its value in agricultural use. One might conclude that there exists a broad general level of support for reducing the burden of local taxes on farmland owners across the country. But, it is unclear whether this support is directed toward the preservation of farmers, the preservation of farmland, or both.

The Virginia use value assessment taxation program has been in place for over 25 years. It has produced substantial tax savings for Virginia agricultural, horticultural, forest, and open space landowners in those jurisdictions that have adopted use value taxation programs. The land use taxation program works by allowing local jurisdictions to assess agricultural land at its value in a particular use, or "use value." If no local ordinance² has been adopted, landowners may still qualify for use value taxation if their land is in an Agricultural or Forestal District. To qualify for this special assessment, the agricultural land must be part of a *bona fide* farm operation.³ Agricultural use value is the expected market value for a property in agricultural use and is estimated from its capitalized net agricultural income or rented payments for agricultural land.

Use Value Differs From Fair Market Value

To better understand use value, making an analogy to fair market value is helpful. Fair market value is the value of a particular parcel in its "highest and best" use. Certain

¹ Code of Virginia Section 58.1-3229

² Virginia code actually allows for use value taxation in agricultural, horticultural, forestal, and open space uses. Local ordinances specify which of these uses qualifies in the jurisdiction.

³ For specific definitions of what constitutes a *bona fide* farm operation, see the *Manual of the State Land Evaluation Advisory Council*, available from the Virginia Department of Taxation.

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restrictions are placed on this use in accordance with the rules and conventions of society. For all practical purposes, these rules and conventions are spelled out in the local comprehensive plan and zoning ordinances and in case law. Therefore, fair market value is essentially the amount one could expect to sell a parcel for if no further restrictions were placed on its use other than those placed on the parcel through the local political process.

In contrast, use value is the amount that one would expect to sell the land for if it were restricted to a pre-defined use. For instance, agricultural use value is the amount one would expect to receive if the land were to be maintained solely in agricultural use. As the options for land use are restricted, one would typically find that use value is less than fair market value. However, for parcels where the allowed use is the same as the highest and best use, essentially no difference is seen in the values.

Examining which Virginia counties have adopted a local agricultural use value ordinance further illuminates this idea. Sixty-nine counties and 18 independent cities have local agricultural use value ordinances. The expectation is that those counties that have few viable alternative land uses besides agriculture would be less likely to have a local use value ordinance. Generally, most counties without a use value program would be found where development pressures are less dominant. Notice in Figure 1 that those counties that are near major metropolitan areas or interstate highways are more likely to have agricultural use value programs. Portions of Southwest, Southside, Northern Neck, and the Allegheny Highlands of Virginia comprise those counties without use value programs.

The Role of Land Government Officials

In Virginia counties and cities, the local Commissioner of Revenue or duly appointed Assessing Officer is

charged with the responsibility and empowered with the authority to set the assessed value for both real and personal property. Commissioners of Revenue are, therefore, responsible for assessing agricultural land. In those counties *without* use value assessment, Commissioners of Revenue use only fair market value assessment. However, in jurisdictions with a local use value ordinance, agricultural land must be assessed at both its fair market value and its use value. Both assessment methods are required because the difference between use value and market value represents a “deferred” tax that must be repaid should the land be converted to an ineligible use. This deferred tax is referred to as the “rollback” tax and Virginia Code requires that landowners who convert their land to an ineligible use must pay back to the locality five years of rollback taxes plus interest.

The Role of SLEAC

In order to help Commissioners of Revenue in the process of determining reasonable use values, the Virginia State Land Evaluation Advisory Council (SLEAC) contracts with personnel in the Department of Agricultural and Applied Economics at Virginia Tech to develop use value assessment estimates. These estimates are to “be considered”⁴ in the local assessment of such land. Local Commissioners of Revenue are not required to use these estimates directly in arriving at assessment values for agricultural real property although many do. These estimates are, in fact, used directly by some jurisdictions while other jurisdictions choose to complement the estimates with other information. An informal survey of assessing officers conducted by the authors found that approximately half used these estimates directly while another 45 percent stated that they were a major factor in arriving at a final assessment value. Only 5 percent reported that these estimates were only a minor factor. No one indicated not considering these estimates at all. Even so, considerable debate occurs amongst

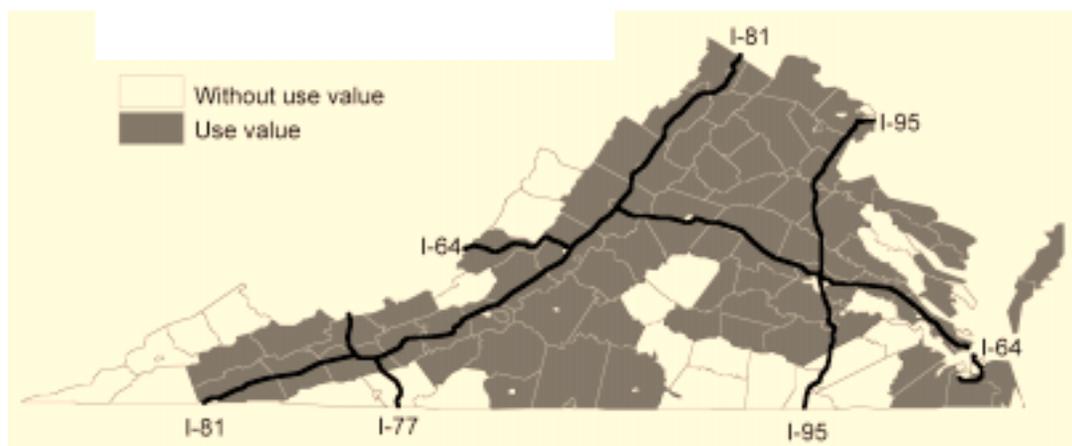


Figure 1: Location of counties with Use Value Taxation.

Commissioners of Revenue on who should have final responsibility for assigning values and how the final assessment should be determined. However, the ultimate responsibility currently lies with the local Commissioners of Revenue or their duly appointed Assessing Officers.

Calculating the Estimated Use Value of Agricultural Land in Virginia

The methods used to generate these estimates for SLEAC are dependent upon the availability of various sources of published information. The amount of detailed information that would be required for these estimates to apply perfectly to every individually qualified land parcel in every jurisdiction would be enormous and costly. Therefore, the Virginia General Assembly has decided to let the final determination of assessed values rest with the locality and their duly enabled officers. For Commissioners of Revenue to make informed and sound decisions, they must be able to judge the applicability of the information provided by SLEAC to the situations within their jurisdictions.

As indicated earlier, most Commissioners of Revenue choose to base their use value assessment decisions largely upon SLEAC estimates. So that Commissioners of Revenue and other interested citizens might understand how these estimates are determined, the remainder of this publication explains the procedure.⁵

Section 58.1 – 3239 of the Code of Virginia requires the SLEAC to base their estimates of the use value of agricultural and horticultural lands either on the capitalization of cash rents or the capitalization of net income. This method is based upon the earnings or income capitalization approach to calculating the value of property (Sutter). Since rental markets are nearly non-existent in many jurisdictions and published rental data are unavailable, the SLEAC has elected to base their use-value estimates on the capitalization of net income. Also, there are numerous complications that arise in attempting to estimate the returns to land from livestock enterprises. Therefore, the SLEAC has decided to consider only returns to cropping.

The three basic components of the method used to estimate agricultural use values are determination of a typical farm enterprise, estimation of net income for this

enterprise, and estimation of an appropriate capitalization rate. The estimated net income is divided by the capitalization rate to produce estimated use values for all jurisdictions. Once these estimated use values for agricultural land for each jurisdiction are determined, they are adjusted for differences in soil capability that occur within each jurisdiction.

The Typical Farm Enterprise

The agricultural sector in Virginia is very diverse. A typical agricultural operation located in the Eastern Shore is very different from a typical operation located in the Northern Neck region. For this reason, the accurate estimation of agricultural use values requires developing a composite or typical farm for each jurisdiction participating in the use-value program. The U.S. Bureau of the Census provides county level data on the total number of farms and the total acreage harvested by crop in the Census of Agriculture. Dividing total acreage of each crop harvested by the total number of farms yields the composite farm for each county. For example, if a county has 300 farms with a total of 120,000 harvested acres of corn, 60,000 harvested acres of soybeans, 30,000 harvested acres of barley, and 12,000 harvested acres of alfalfa. The composite or typical farm would then consist of 400 acres of corn, 200 acres of soybeans, 100 acres of barley, and 40 acres of alfalfa.

Net Farm Income

The next step in the procedure is to develop enterprise budgets for each of the primary crops comprising one or more acres of the composite farm.⁶ These budgets are developed in cooperation with Virginia Cooperative Extension Farm Management Agents. In 1999, the primary crops used were corn, alfalfa, hay, wheat, barley, soybeans, cotton, and potatoes.⁷ Although basing net returns on a single crop produced throughout the state (i.e. corn) would be simpler, an effort is made to incorporate at least some of the cropping mix and crop rotations used by *bona fide* commercial agricultural operations.

Net returns to pastureland are not explicitly considered. Data limitations coupled with the diversity of livestock operations make the accurate estimation of pastureland net returns difficult. Whether in crop or livestock production, it is the value of the land that is of interest in the calculation of use values. So, pastureland use values are imputed from cropland use values using a land

⁵ More detailed information on the legal aspects of the use value program can be found in the *Manual of the State Land Evaluation Advisory Committee* available from the Virginia Department of Taxation. More on the methodology can be found in the publication titled "1999 Procedures Manual: Methodology for Determining the Use Value of Agricultural and Horticultural Land in Virginia, Tax Year 2000" by Ed Van Eenoo and R. David Lamie, April 1999, Virginia Tech Department of Agricultural and Applied Economics, Report to Virginia State Land Evaluation Advisory Committee (SLEAC)

⁶ A complete listing of the enterprise budgets is available for public inspection at the Virginia Department of Taxation or from the Virginia Tech Department of Agriculture and Applied Economics.

⁷ Structural changes in production agriculture necessitate occasional changes in the primary crops.

capability index. For more information on how pastureland use values are calculated, refer to the most recent issue of the *Manual of the State Land Evaluation Advisory Council* referenced at the back of this report.

An important factor in the assessment process is how improvements on the land are valued. The value of farm homesteads and improvements, like confined animal feeding units, are assessed at fair market value. Only the land beneath them is valued at its value in use. For those farm improvements that have no uses outside agriculture, fair market value is equivalent to use value. However, there may be instances where farm improvements may have non-agricultural alternative uses. Nonetheless, these improvements are taxed at fair market value, not their value in agricultural use. Thus, those farmland owners with substantial property values emanating from improvements, such as poultry houses, instead of from farmland, typically benefit less from use value.

The budgeting process produces an annual per acre net return for each crop grown on the composite farm. The annual per acre net returns from the past seven years are used to determine an Olympic average net return for each enterprise.⁸ This averaging process helps to mitigate fluctuations in the annual use-value estimates caused by unusually good or poor years.

Federal payments are included as a source of revenue. The rationale for including federal payments is that the expected stream of revenue from these payments will be capitalized into the value of the land. Implicitly assumed is that the past flow of these payments is an indicator of future payments. Federal payments have been generally made to corn, barley, cotton, and wheat and are estimated on a seven-year moving Olympic average. The estimated federal payments are then added to the estimated net returns. Thus, even in years when crop incomes are low, federal payments may offset them. Thus, the use value estimates are based upon the total income from crop enterprises from both the selling of the crop and the transfers from the federal government. This procedure for calculating net returns is performed for each primary crop comprising at least one acre of cropland harvested on the composite farm.⁹

A weighted average¹⁰ of the primary crop net returns provides the net income per acre of cropland harvested. The total acreage figures used in calculating the weighted average of net returns do not include acreage devoted to quota crops (i.e., peanuts and tobacco). Since quotas are not evenly distributed among farms, the use value of agricultural land devoted to the production of peanuts and

tobacco is calculated independently of the use value of land devoted to primary crops.

The Capitalization Rates

The income capitalization method of determining use values requires that the present value of a future stream of income likely to flow from an investment be estimated. Present value is the amount necessary to invest today in order to achieve a specific future stream of income. Present value depends upon both the specific nature of the income stream and the time value of money or interest rate. In determining use value, the present value is calculated by dividing the expected dollar value of net income by a capitalization rate (Sutter, p. 217).

The capitalization rate used for the calculation of agricultural use values in Virginia is composed of a variety of components that vary depending upon the characteristics of the agricultural operation. The basic capitalization rate is the sum of a property-tax component and an interest-rate component. For certain real estate tracts with poor drainage that are at risk of flooding, the capitalization rate includes an additional risk component to account for the effects of weather-related risk. A component to discount the risk of quotas being removed from peanut and tobacco crops is added when estimating their use values.

The Basic Capitalization Rate

The interest-rate component of the capitalization rate is a weighted average of *long-term* interest rates that are charged by the Farm Credit Associations (FCA) serving Virginia. The long-term interest rate reflects what an alternative to owning agricultural land would be expected to return over an extended period of time. To reduce the variability of the annual use-value estimates, the SLEAC has elected to average long-term interest rates over the past 10 years.

The real property tax component is a 10-year moving average of the effective-true-real-property-tax rates published annually for each jurisdiction by the Virginia Department of Taxation. The real property tax component utilized for agricultural land is also utilized for horticultural land. The sum of the interest rate and property tax rate equals the basic capitalization rate in each jurisdiction.

Weather-Related Risk Component

Agricultural enterprises are subject to numerous risks. However, the risks associated with input costs, crop yields, and prices received are adequately accounted for

8 In an Olympic average, the highest and lowest values are dropped prior to calculating the arithmetic mean.

9 Cropland harvested acreage is a subset of total agricultural acreage that does not include planted acreage that is not harvested.

10 Total cropland harvested acreage devoted to each crop enterprise on the composite farm supplies the weights.

by the procedures utilized since these risks occur on an across-the-board basis and do not reflect individual land risk situations. The two primary types of risks explicitly considered in the methodology are related to rainfall, either a shortage or excess. An important difference between the two is that the risk associated with drought is not land-related while the risk associated with an excess of rainfall is land-related. The risk of drought is typically distributed uniformly within a jurisdiction and, therefore, does not warrant special attention.

However, the risk associated with an excess of rainfall is typically land-related and, therefore, varies within a jurisdiction. The risks associated with excess rainfall are reduced crop yields or crop loss caused by flooding. The size of the risk component varies depending upon the period over which a total crop loss is expected on lands subject to the effects of excess rainfall. The use value estimation methods used in Virginia assume that a total crop loss will occur on land at risk of flooding once every 20 years. This means that the basic capitalization rate is increased by 0.05 for land that has poor drainage and is at risk of flooding. Separate use value estimates that incorporate this risk component are produced for use by the Commissioners of Revenue.

Quota Crop Risk Component

Quota crops (i.e. peanuts and tobacco) present special problems because they are subject to output controls in the form of allotments and/or quotas. Quota crops contribute significantly to the productive earning power of a real estate tract devoted to agricultural use and the acreage of quota crops is not distributed uniformly. Real estate without a quota or allotment for a crop subject to output controls cannot be used to produce such crops.¹¹ This presents challenges in determining and applying use values for those jurisdictions where quota crops are common. For this reason, the portion of use value attributable to the value of the land (estimated using the primary crops) and that attributable to the value of the quota (estimated using the quota crops) are treated separately.¹²

The budgeting procedure used for the quota crops is similar to that used for each of the primary crops. However, in order to arrive at a figure representative solely of the value of the quota, net returns to cropland harvested are subtracted from net returns to quota crops prior to applying the capitalization rate. Furthermore, the capitalization rate used for quota crops is not the same as the rate used with the primary crops. There is a significant risk that allotments and/or quotas will be removed from the controlled crops. To account for this

an additional risk component is added to the capitalization rate for quota crops. The estimation procedure assumes that there is a one in five chance that quotas will be removed from peanuts and tobacco within the next five years. Adding 0.20, representing this one in five probability, modifies the basic capitalization rate described above. This higher capitalization rate results in a much lower estimated value for the quota than would have been generated had it been assumed that quotas will be in place forever.

Calculating Use Values

When per acre net incomes and capitalization rates for each jurisdiction have been estimated, calculating the use values for each jurisdiction is straightforward. The basic formula is:

$$\text{Use Value} = \text{Net Income} / \text{Capitalization Rate}$$

From this formula factors affecting use-value estimates become obvious. For example, if the per-acre net income was \$24 and the capitalization rate was 0.08, then the use value would be \$300 as follows.

$$\text{Use Value} = 24 / .08 = \$300$$

This initial set of values is used as the basis for estimating a range of values to reflect differences in soil types.

An increase (decrease) in a jurisdiction's use-value estimate is caused either by an increase (decrease) in net income or a decrease (increase) in the capitalization rate.

Adjusting for Variations in Soil Type

The initial use-value estimates do not reflect the fact that each jurisdiction and each parcel of land has different soil productivity characteristics. Section 58.1 – 3239 of the Code of Virginia directs the SLEAC to annually publish use-value estimates *for each of the eight Soil Conservation Service land capability classifications*. The most direct way to accomplish this would be to develop a separate set of enterprise budgets for each land class. Unfortunately, much of the data necessary is not reported in sufficient detail. Therefore, the SLEAC has approved the use of an index to adjust use values for the various land capability classifications.

When the mix of land capability classes of an individual land parcel is known, using the adjusted use-value estimates allows the assessment to be based more on the actual productive capability of the land. Many jurisdictions do not have this level of information. Therefore, they rely upon some form of weighted average

11 An exception exists for peanuts where additional may be produced without a quota.

12 A minimum of one acre of a jurisdiction's representative farm must be committed to peanut or tobacco production in order for a separate value to be generated for the quota.

value for the entire jurisdiction and assign this value to all agricultural land in the jurisdiction, regardless of the productive capability of any particular parcel.

Discussion

Programs that allow preferential treatment of agricultural land exist in all 50 states. In most states this means that agricultural land may be valued for property tax assessment purposes according to its value solely in agricultural production. This represents a substantial tax savings for farmland owners who own land that has higher valued uses. Virginia has allowed the use value assessment of agricultural land for over 25 years. Currently, the use value taxation of agricultural land takes place in the 69 counties and 18 cities in Virginia that have adopted local use value ordinances. It also takes place in designated agricultural districts in jurisdictions without local ordinances.

Local Commissioners of Revenue in these jurisdictions are charged with the responsibility of setting assessment values to these properties. Virginia state code specifies that these locally elected officials *must consider* the values produced by the State Land Evaluation Advisory Committee (SLEAC) in the determination of use values for agricultural land. Other factors considered in the process are most likely a product of their particular knowledge of the local situation and their willingness and ability to justify other values. However, survey results indicate that most use the SLEAC estimates directly.

An important role of the State Land Evaluation Advisory Committee is to approve methods for estimating use values for agricultural land. Virginia Code allows for the estimation of use values by either the capitalization of cash rents or by the capitalization of net farm incomes.

Currently, the SLEAC has approved the method of capitalizing net farm incomes. The method used has a long history in Virginia and is substantially similar to the methods used in many other states. The alternative of basing use values on cash rents will not likely be used extensively in Virginia unless a valid method for collecting cash rent data is established.

This report provides an overview of the procedures used to produce estimates of use value for agricultural land as reported by the Virginia State Land Evaluation Committee. This report also provides insight into the process that ultimately generates assessed values for particular parcels of agricultural land. It is hoped that greater knowledge of these procedures will provide the basis for a more informed dialogue on use value taxation in Virginia.

References

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