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POSSIBILITIES FOR IMPROVING GUIDELINES FOR USE BY ASSESSORS IN CLASSIFYING FARMLAND UNDER NEW YORK'S AGRICULTURAL DISTRICT LAW

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Debate has arisen recently relative to the guidelines now provided by the New York State Board of Equalization and Assessment for the classification of farmland when a farmer applies for a farm value assessment under the Agricultural District Law.

This paper outlines the law that has necessitated the development of these guidelines and discusses those now in use. It reviews guidelines in use for similar purposes in other states and evaluates the alternatives being proposed for New York.

Agricultural District Law

In 1971, New York's legislature passed the Agricultural District Law (Agriculture and Markets Law, Article 25-AA). The law is designed to encourage the continuance of a strong agricultural industry in the face of growing urban pressure and speculation. It seeks to achieve this goal by (1) offering farmers an opportunity to protect themselves from some of the rising costs and governmental actions usually associated with urbanization, and (2) providing discouragements to residential, industrial, and commercial development within good farm areas.

The farm value assessment feature of the Agricultural District Law is designed to protect farmers from rising assessments and consequent high property tax levies in urban fringe areas. A farmer in an agricultural district can apply directly for a farm value assessment while a farmer outside can become eligible if he files an agricultural commitment. To qualify for a farm value assessment, the farmer in either case must own ten or more acres on which agricultural products with an average gross value of at least $10,000 were produced during the preceding two years.

Under the District Law, the State Board of Equalization and Assessment is directed to determine "agricultural value per acre" annually for "different regions of the state and for different types of farmland."[1/] The Board, exercising its administrative discretion, decided to determine

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1/ Bryant, W. R. and Conklin, H. E., Legislation to Permit Agricultural Districts in New York, Agr. Econ. Ext. 75-24, Cornell University, October 1975, pp. 11-12.

values separately for each county and for a maximum of 15 different "types," or capability ratings, of land. Exhibit 1, Part 1, identifies the different capability ratings of land recognized by the Board and Exhibit 1, Part 2, provides the guidelines now being supplied to assessors for determining the rating to be assigned a given piece of land.

The Board sets different values on the lands of various ratings by county. Exhibit 2 is an excerpt from the table of values issued by the Board for use by assessors in 1975. The law instructs the Board to determine these values as follows:

> "c. Agricultural value per acre shall be determined annually by the state board of equalization and assessment by ascertaining the average value per acre of lands used in agricultural production in New York state after consulting with the agricultural resources commission and taking into consideration the data promulgated by the United States department of agriculture with respect to its index numbers of average value per acre of farm real estate and such other data as may be appropriate, including sales and appraisals utilized by such board in the establishment of equalization rates pursuant to article twelve of the real property tax law.
>
> Such determination shall be made after a public hearing by such board or its duly designated representative."

These values are referred to as "ceiling" values but are in fact the values to be used by the assessors in computing the farm value of any land for which the farmer has applied for and been granted a farm value assessment.

Guidelines Now in Use

As might be expected, controversy has arisen over various aspects of the activities being carried out by the State Board under the Agricultural District Law. Probably the greatest differences of opinion have arisen over the actual numerical values assigned to lands in the various rating classes, but controversy also has been occasioned by the guidelines for the rating classes themselves. It is these guidelines that are the subject of this paper.

Part 2 of Exhibit 1 is a copy of the present guidelines. These guidelines are to be used by the farmer in completing column 3 of the application (Part 1 of Exhibit 1) and by the assessor in completing column 4 of that form.

These guidelines appear under the heading "Capability Ratings are defined as follows." Nowhere in these guidelines is there an explanation of "capability." Is it what the best farmer could do? The average farmer? The applicant? What kind of weather does it assume or is it to be an average over a period of years for which weather varies?

EXHIBIT 1 Part 1

Tax Map No. _____

6. CALCULATION OF CEILING ON ELIGIBLE AGRICULTURAL LAND State Equalization Rate _____

Applicant			Assessor's Use Only			
1	2	3	4	5	6	7
Land Use	Rating	Acres	Acre/Rating Modification	Certified Value Per Acre	Total Certified Value	Ceiling
Cropland _____ Acres Also tillable pasture	E					
	A					
	B					
	C					
Orchards _____ Acres	A					
	B					
	C					
Vineyards _____ Acres	A					
	B					
	C					
Muck (Black Dirt) _____ Acres	A					
	B					
	C					
Pasture	P					
Other Farmland	O					
Total Acres				Total of Ceiling on Eligible Land		

CERTIFICATION

I, _____ hereby certify that the information on this application constitutes a true statement of facts to the best of my knowledge and that all lands described above are used for production for sale of agricultural products or land uses auxiliary thereto.

_____ Date

_____ Signature of owner

PENALTY FOR FALSE STATEMENTS: A person making false statements on an application for exemption is guilty of an offense punishable by law.

EXHIBIT 1 Part 2

INSTRUCTIONS FOR APPLICANT

Page 2, item 6. Column 3 of this item must be completed by the applicant. Applicant must (1) state the number of acres used in each category of land use and (2) estimate the capability rating attributable to the acres in each land use category.

Capability Ratings are defined as follows:

Cropland

E - Suited to the production of high value vegetable crops including fresh grown tomatoes, carrots, beets, broccoli, peppers, celery, strawberries, melons, spinach and lettuce. Availability of irrigation water is assured.

A - Suited to the production of corn for grain, alfalfa, wheat and lower value vegetable crops, such as cabbage, potatoes, sweetcorn, snapbeans, processing tomatoes and dry beans. Capable of yielding over 100 bushels of corn, 3 1/2 tons of alfalfa, and 50 bushels of wheat per acre. For vegetable crops, minimum yield capabilities per acre are: cabbage, 25 tons; potatoes, 300 hundred weight; sweetcorn, 6 tons; snapbeans, 3 tons; processing tomatoes, 20 tons; and dry beans, 1 ton.

B - Most commonly used for corn silage, hay and small grains, though lower value vegetable crops may be grown. Corn silage yield capability is 15 tons or more per acre; alfalfa grass mixtures yield 2 tons or more per acre. Yields for vegetable crops are below those for "A" rated cropland.

C - Most commonly used for dairying. Corn is mostly for silage, and yields are under 15 tons per acre. A high proportion is hay with some grass, alfalfa and clover, and yields may fall under 2 tons per acre. Oats are sometimes grown, and oat yields are usually under 60 bushels. Vegetables are seldom produced commercially. When land is used for pasture, yields are comparable to yields for hay.

Orchards

A - Orchard will yield 550 bushels or more of apples per acre, 6 tons of cherries per acre or equivalent yields of less common fruits.

B - Orchard will yield 400 bushels of apples per acre, 4 tons of cherries per acre or equivalent yields of less common fruits.

C - Orchards which yield less than the amounts indicated in "B" above. *Fruit orchards not capable of yielding 300 bushels of apples per acre, or 2 1/2 tons of cherries per acre should be considered as cropland with a "B" rating.

Vineyards

A - Vineyard yielding 5 tons of grapes per acre and above.
B - Vineyard yielding between 4 and 5 tons of grapes per acre.
C - Vineyards yielding less than 4 tons of grapes per acre.

Muck

A - Suited for growing onions and lettuce. Yields 750 bushels or more of onions per acre. Depth of muck is greater than 6 feet. Drainage is good enough to preclude flood damage to crops. Irrigation water rights are assured.

B - Suited for growing onions, lettuce, celery, spinach, and carrots. Onion yields are generally 600 bushels per acre. Depth of muck is between 3 to 6 feet. Occasional damage from flooding, and irrigation water may be scant in some years.

C - Limited to growing potatoes, sweetcorn, and other moderate intensity crops. Depth of muck is under 3 feet. Legal rights to water for irrigation may be questionable. Spring and fall flooding may restrict use.

P - Pasture - Land used as permanent pasture which has not been plowed within 5 years. Consists predominantly of native grasses.

O - Other Farmland - Nontillable lands with severe limitations; may be swampy rocky, or over-grown with nonmarketable trees, but is an integral part of the farm and is not used for any nonfarm purpose.

EXHIBIT 2

STATE OF NEW YORK
STATE BOARD OF EQUALIZATION AND ASSESSMENT

Agricultural Value Factors
For Computing Agricultural Value Assessment Ceilings

(For City & Town Assessment Rolls Completed in 1975 & for Village Assessment Rolls Completed in 1976)

	PER ACRE														
	CROPLAND				ORCHARD			VINEYARD[1]			MUCK				
County	E	A	B	C-Incl. Tillable Pasture	A	B	C	A	B	C	A	B	C	Pasture P	Other Farm Land O
Albany	450	325	175	100		450	275							60	25
Allegany		225	115	60										35	25
Broome	425	275	165	90	550	375	190							55	35
Cattaraugus	425	275	115	55				1000	725	500				35	25
Cayuga		275	175	90	475	325	200				700	500	300	55	25
Chautauqua	425	325	175	100	675	475	300	1025	750	475				45	25
Chemung	425	275	165	90										55	35
Chenango	450	300	175	90										60	25
Clinton	250	175	125	65	575	375	300							45	25
Columbia	575	375	250	150	700	525	350	1050	750	525				150	60
Cortland	450	300	175	100										60	25
Delaware	450	300	175	90										60	25
Dutchess	600	400	300	175	825	625	350	1050	750	525				150	60
Erie	950	400	225	115	675	500	325	1050	775	500				90	50
Essex		175	100	60	525	350	275							35	25
Franklin	325	175	100	60										35	25
Fulton	250	175	125	70										35	25
Genesee	450	325	200	115	525	350	175				1700	1200	300	70	25
Greene		300	175	90	525	350	175							60	25
Hamilton		175	100	60										35	25

Under the "E" cropland class, the guidelines state, "Suited to the production of high value vegetable crops...." Does this mean economically suited? If so, what level of net farm income is to be assumed? Or does it mean physically suited, perhaps because it is sufficiently resistant to erosion so it will not be damaged by growing these crops?

Further down the guidelines, a distinction between "B" and "C" land is made by specifying that corn silage yields are 15+ tons per acre on the former and under this for the latter. No assurance is given, however, that 15 tons is a critical breaking point. Similarly, no assurance is given that the $85 difference between those two classes for Cayuga County on Exhibit 2 really was chosen to accurately reflect the difference in value that occurs in the market prices of these two classes of land.

Many other specific questions remain unanswered about these guidelines. Probably they can be most severely criticized, however, because the value of farmland for farming depends on more than just its yield capacity. Such factors as location, topography, and size of fields are important also. The past work of farmers in draining the land, picking stones, removing hedgerows, adding lime and the like also affect value.

In the light of these inadequacies in the classification scheme presented in Exhibit 2, it certainly would seem more appropriate to label this section of the application "A Guideline for Classification of Farmland," implying that farmers and assessors need to consider other factors as well. As the application form now stands, there are no instructions indicating the need to consider factors other than yields.

Meaning of "Agricultural Value"

These shortcomings in the present procedures invite a search for better alternatives. In this respect, it is appropriate to first consider in some depth the meaning of the term "agricultural value." The setting of this value is the purpose of the whole exercise.

The Agricultural District Law is disappointingly vague on the meaning of agricultural value. There is no definition for the term either in the definition section or elsewhere. Its meaning must be inferred from the intent of the law.

Since the law intends to facilitate continued farming in areas of urban scatteration near expanding urban perimeters, it seems reasonable to infer that agricultural value is that value on which a farmer can pay taxes out of farm income without being driven out of business; or in other words, the purchase price a farmer could pay and still have enough left for family living after paying his operating expenses, including

taxes, and after making the new capital investments that are continuously necessary to keep a farm business viable when technology changes as rapidly as it does in most parts of the United States.

Farms are bought and sold in the normal course of events in rural farming communities in order to transfer them from one generation to the next and to adjust their sizes to new technology. The prices at which transfers take place in rural areas are ones that permit the buyers to make minimally acceptable levels of living and maintain their capital.

The agricultural value of a given area of farmland can thus be considered to be the price it would sell for if it were located in an agriculturally viable rural community beyond the reach of urban influences that raise land prices beyond what farm incomes alone would support. This poses the problem, then, under the Agricultural District Law, of estimating what given areas of farmland would sell for if they could be moved away from urban influence.

There is another and perhaps easier way of looking at the valuation problem posed by this law. What would given areas of urban influenced farmland sell for if the purchaser obtained only the right to farm them? Suffolk County's program to purchase development rights on farmland may provide us with a better understanding of this concept of farm value.

Land that carries no development rights would have to be paid for by farmers out of farm income essentially as though it were in a rural area beyond urban influence. It would, of course, be possible for affluent people to buy such land for personal recreation and hobby farming, but this demand clearly is limited. Some farmers in fringe areas would benefit from the possibility of marketing products at roadside, so their land would sell somewhat higher than if it were farther out, but their farm incomes also would be higher, making a higher valuation for tax purposes logical.

In conclusion, the values the State Board should have in tables like Exhibit 2 should be per acre estimates of what farmland would sell for if the buyer could only use it for farming. Or, they should equal the prices a young man could pay for various kinds of farmland out of farm income while simultaneously making necessary capital improvements. Obviously, the rating or classification of farmland used by the State Board should make as clear a distinction as possible between lands a farmer could pay a high price for and those he could afford to buy only at a low price.

Possible Alternatives

Remember that this discussion relates to only one part of the problem of getting good numbers for tables like Exhibit 2 -- the problem of classifying farmland within a county and settling on

appropriate differences in values among the rating classes that are chosen. Even so, the above discussion indicates that those things that influence what a farmer can pay for land out of farm income still must be looked at; or more properly, those things that determine how much more a farmer can pay for one piece of land than for another must be considered.

The classification system has to be both simple and flexible. It has to be simple enough so farmers and assessors can use it and it has to be flexible enough so they can use their knowledge of local factors in making a final determination of the class to be assigned to any given farm or field. The system should not be so "cut and dried" that the local people involved have no discretion.

In attempting to improve New York's system let's look first at what is being done in other states.

In Nebraska, a physical classification system was developed in 1938 for estimating acre yields of corn, wheat, oats, alfalfa, and pasture in relation to various types of soil and land.2/ One proposed use of this system was for tax assessment purposes. More recently, an economic classification of farmland has been implemented in Nebraska for assessment purposes.3/

In Maryland, SCS has physically classified all farmland in the state into six classes based on the potential yield of corn crops.4/ Transparent soil maps showing these six classes were developed so that assessors could overlay them on their field maps. One disadvantage of Maryland's system is that corn is not necessarily the most profitable crop throughout a state. Ability to produce corn may not be a good indicator of ability to produce other crops or livestock.

In Iowa, the property tax code specifies that modern soil surveys be used to aid in determining productivity and earning capacity.5/ A

2/ Anderson, Arthur, et. al., A Proposed Method for Classifying and Evaluating Soils on the Basis of Productivity and Use Suitabilities, Bulletin 98, University of Nebraska, May 1938.

3/ Ottoson, Howard W., et. al., Valuation of Farm Land for Tax Assessment, Bulletin 427, University of Nebraska, December 1954.

4/ House, Peter W., Differential Assessment of Farmland Near Cities ... Experience in Maryland Through 1965, ERS 358, U.S. Department of Agriculture, October 1967.

5/ Fenton, Thomas E., "Use of Soil Information in Market-Value and Use-Value Assessment Programs," Property Tax Incentives for Preservation: Use-Value Assessment and the Preservation of Farmland, Open Space, and Historic Sites, International Association of Assessing Officers, 1975.

physical land classification system has been developed for this purpose. Each soil mapping unit in the state is assigned a corn suitability rating (CSR).

In Wyoming, where livestock production predominates nearly to the exclusion of other forms of agriculture, a confederation of agricultural organizations has recently suggested that assessment of agricultural lands might logically be based on the productivity of land measured in animal-unit-months (AUM's) of carrying capacity for livestock.6/ The AUM equivalents for crop production per acre could be determined in a straightforward manner by converting crop yield to TDN and then to AUM equivalents.

The majority of states with farm value assessment laws provide the local assessor with guidelines reflecting productivity for classifying land according to farm value.7/ Using these guidelines and his own discretion, the local assessor determines the amount of land falling within a certain classification. He is given some leeway to consider factors influencing farm value not mentioned in the guidelines when a classification is made. In this respect, the system developed in New York by the State Board resembles that commonly used in other states.

Of those mentioned above, the Maryland system appears to be most rigid. It has the advantage of simplicity, however. The Iowa system, including as it does provision for estimating earning capacity, is the most complicated.

There seems to be little doubt that a system set up in terms of earning capacity, as in Iowa, could be made to picture most accurately and completely what a farmer could pay for land out of farm income. A farmer has to make his mortgage payments out of farm earnings.

Such a system of classification would be more difficult to use, however, in New York than in Iowa. Both land and agricultural markets vary widely here. Farming as a consequence varies widely in both type and incomes. Much New York farming also involves intensive livestock enterprises, making calculations of net incomes more difficult. And there is no well organized and stable land rental market in some areas of this state.

6/ Kearl, W. Gordon, Assessment on Productivity of Agricultural Lands in Wyoming, Agr. Econ. 75-13, University of Wyoming, December 1975.

7/ Gloudemans, Robert J., Use-Value Farmland Assessment, Theory, Practice, and Impact, International Association of Assessing Officers, 1974.

The State Board has been urged to partially base its determinations of ceiling factors on net earnings, especially in areas where there are no bonafide farmer to farmer sales. To propose that individual farmers and assessors compute net earnings to classify a particular farm probably is asking too much. At least such an undertaking would be so difficult that a major incentive exists for examining other possibilities.

The Maryland system, based on corn yields, appears quite unsuited to New York. Corn is grown in many parts of this state but its importance varies relative to other crops. In many areas hay is very important. It is true probably that the highest yields of hay are grown in the areas that have the highest yields for corn. But elsewhere the correlations between hay yields and corn yields often are not high. The use of this system could result in over-taxing farmers with good corn producing potentials and under-taxing those located where the soils are equally good but the climate is too cool for the highest corn yields, though satisfactory for good hay yields.

The earlier classification used in Nebraska was essentially the same as the one now in use by the State Board. It involved estimating yields for many crops.

The Wyoming system has the advantage of providing a single common denominator for ranking all lands. That common denominator's usefulness derives, however, from the relative simplicity of Wyoming agriculture. Nearly everything grown in the state is fed to livestock, so AUM's or their equivalents are meaningful for all farming. This is not true in an agriculturally diversified state like New York. Possibly an estimate of gross income per acre might be sufficiently correlated with the price a farmer could pay for the land to make it a suitable common denominator here. This is doubtful, however, because farmers in some instances sell hay and in others convert the hay to milk before sale. Even for cash crops, the percentage of gross income that is left after all expenses are paid may vary quite widely. Research in farm management does indicate, however, that within a given type of farming there normally is a fairly close correlation between gross and net measures of income. Gross income probably could not be a satisfactory indicator by itself of the farm value of land statewide, but with special arrangements it might be a useful aid.

The Soil Conservation Service Capability Classification

The U.S. Soil Conservation Service has developed a system of classification that its workers use widely throughout the nation. The fact that it is systematic and applied uniformly over widely varying conditions recommends its consideration as a possible guide for the classification of land for farm-value assessment purposes. This system has only eight classes (though it has many more subclasses and "units") and appears at first glance to be simple enough to be used by relatively untrained persons.

The SCS capability classification is referred to in SCS publications sometimes as a land classification ("land capability classes"8/) and sometimes as a soil classification ("capability group of soils"9/). The latter description is more recent and is used in current soil survey bulletins. The change in terminology presumably indicates a narrowing in scope, since soil is only one of the aspects of land, along with climate, topography, location and terrestrial water.

Exhibit 3 presents an abbreviated description of the soil capability classification system and brief definitions of the individual groups. The brief description of the system states that it "shows in a general way how suitable the soils are for most kinds of farming." This might be taken to imply that the economic suitability of land for farming is one of the criteria of the system. The idea that the grouping is based in part on "the way they respond to treatment" could be taken to indicate that the classes differ in the yields they provide at given levels of inputs. Even if suitability is only physical, the definition of classes in terms of responsiveness might assure that they reflect economic productivity or even the prices a farmer might be able to pay for the different "soils" out of income.

The present emphasis on soil rather than land is troublesome, however. It apparently is deliberate, yet it is clear that climate, at least, can greatly modify net incomes from farming even when the soil is considered to be in the same group. For example, soils of the shallow Farmington Series in Livingston County support a lower level of farm income than comparable soils in Herkimer County because rainfall is lower in Livingston County. Alton soils support successful fruit farms when the climate is suitable but may have limited usefulness otherwise. Many more examples could be cited.

Topography actually is considered to some extent in the capability classes, though closer inspection indicates that the slope classes are set up in terms of the erodability of the soil rather than the suitability of the fields to machinery. The manner in which topography might limit field size also is not considered in defining the capability groups.

Location, of course, can be a limitation to the usefulness of a field or a whole farm. Good fields often occur in a widely scattered pattern in areas where most of the land is no longer suited to farming. The farmer who travels a long distance to use one of these fields could not afford to pay much for it. It is interesting to note that rental rates for the very productive Ontario and Honeoye soils near Rochester often are less than $10 per acre, compared to $20 to $30 per acre elsewhere, simply because very few farmers are left in some of the

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8/ Guide for Soil Conservation Surveys, Soil Conservation Service, USDA, Washington, D.C., 1948.

9/ Capability Group of Soils, Inf. Sheet NY-61, Soil Conservation Service, USDA, Washington, D.C., 1967.

EXHIBIT 3

U. S. Department of Agriculture
Soil Conservation Service

Information Sheet NY-61
January 1, 1967

CAPABILITY GROUP OF SOILS

The capability classification is a grouping of soils that shows in a general way how suitable the soils are for most kinds of farming. The grouping is based on limitations of the soil, the risk of damage when they are used, and the way they respond to treatment.

CLASS I	Soils with few limitations that restrict their use.
CLASS II	Soils with some limitations that reduce the choice of plants or require moderate conservation practices.
CLASS III	Soils with severe limitations that reduce the choice of plants, or require special conservation practices, or both.
CLASS IV	Soils with very severe limitations that restrict the choice of plants, require special conservation practices with careful management, or both.
CLASS V	Soils with limitations impractical to remove without major reclamation. Use limited largely to pasture, woodland, or wildlife.
CLASS VI	Soils with very severe limitations that make them generally unsuited for cultivation. Generally suited to pasture, woodland, or wildlife.
CLASS VII	Soils with extreme limitations. Restricted to woodland, wildlife, or specially managed pasture.
CLASS VIII	Soils and land forms that are suited only for wildlife, recreation, water supply, or esthetic purposes.

semi-suburban areas of Monroe County. Many potential vegetable farms cannot be used for vegetables because of distance to market or to a suitable labor supply. Capability classes do not reflect these and similar locational limitations.

The terms "limitations of the soil" and "risk of damage when they are used" also occur in the general description of the capability system (Exhibit 3). Presumably, these are features that do not affect the way the soils respond to treatment, else they would not be listed separately from many other soil characteristics that affect response.

These limitations and risks appear to predominate strongly over responsiveness features in the actual class definitions. In fact, the abbreviated definitions in Exhibit 3 are restricted only to such limitations. This is true also in the more lengthy descriptions of the capability classes and subclasses in the individual county soil survey reports.10/ The survey reports speak of limitations that "require" conservation practices. No statement is made as to how the practice "requirements" have been determined. It is simply said, for example, that "any cropping system (on this class) should include a sod-forming crop" or "runoff should be controlled by minimum tillage." No estimates are included of the cost of the practices that are recommended nor of the resulting yield increases (or reduced yield diminutions) that will result therefrom in either the short or long run.

As a matter of fact, no quantitative statements about yields are made in any of the definitions of the capability groups nor even in the general discussions of the various soil mapping units that are included in each of the groups. There is a table, however, in each of the modern county soil survey reports in which average yields for principal crops are given. Interestingly, these are given for the most finely subdivided classes of soil that are identified in soil survey work, the soil phases or mapping units, rather than for the capability groups.

The capability groups, however, consist of groups of soil phases, so it is possible to construct a table showing yield expectations for the members of the capability groups. Table 1 is such a table. It was derived from the 1965 soil survey report for Tompkins County and presents yield data as estimated for "most farmers in the county" for all the soil phases included in Capability Class II.

Looking at Table 1, one familiar with farming in Tompkins County in the mid-1970's would be struck by two points: (a) corn grain yields have increased more than hay yields since the Tompkins report was published, and (b) yields of both crops have increased most on the soils

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10/ See for example: Neeley, G. A., Soil Survey of Tompkins County, New York, Soil Conservation Service, USDA and Cornell University, Ag. Expt. Sta., 1965.

Table 1. ESTIMATED AVERAGE ACRE YIELDS FOR CORN GRAIN AND ALFALFA-GRASS ON CAPABILITY CLASS II WITH TYPICAL MANAGEMENT BY SOIL PHASE, TOMPKINS COUNTY

Soil	Average Acre Yields	
	Corn Grain (bu)	Alfalfa-Grass (tons)
Arkport fine sandy loam, 2 to 6 percent slope	50	2.5
Braceville gravelly silt loam, 0 to 5 percent slope	45	3.0
Chenango gravelly loam, fan, 0 to 8 percent slope	45	3.0
Conesus gravelly silt loam, 0 to 3 percent slope	50	3.0
Conesus gravelly silt loam, 3 to 8 percent slope	55	3.0
Eel silt loam	65	3.5
Genesee silt loam	65	4.0
Honeoye gravelly silt loam, 2 to 8 percent slope	60	3.5
Hudson silty clay loam, 2 to 6 percent slope	45	3.0
Hudson-Cayuga silt loam, 2 to 6 percent slope	50	3.0
Hudson and Collamer silt loam, 2 to 6 percent slope	45	3.0
Langford channery silt loam, 2 to 8 percent slope	35	3.0
Lansing gravelly silt loam, 3 to 8 percent slope	50	4.0
Lima silt loam, 0 to 3 percent slope	40	3.0
Lima silt loam, 3 to 8 percent slope	45	3.5
Mardin channery silt loam, 2 to 8 percent slope	35	N.R.[a/]
Middlebury and Tioga silt loams	65	3.0
Phelps gravelly silt loam, 0 to 3 percent slope	50	3.0
Phelps gravelly silt loam, 3 to 8 percent slope	50	3.0
Williamson very fine sandly loam, 2 to 6 percent slope	40	N.R.[a/]

Source: Table 8, Soil Survey-Tompkins County, New York, Series 1961, No. 25, Issued 1965.

[a/] N.R. stands for "not recommended."

where they were highest then, so the current range in yields is now wider. But there is still an occasional year, such as 1974, when corn yields are not far from those given in this table and, in any event, the figures of this table differ among themselves in the right direction if not in sufficient magnitudes.

The corn yield figures in Table 1 range from a low of 35 to a high of 65 or by a factor of 86 percent. If, for example, all costs in the production of corn, except the cost for land, were $125 per acre, and if corn were worth $2.50 per bushel, then the return for land on Langford and Mardin according to this table would be (35 x 2.50) - $125 = minus $37.50. The return to land on Eel, Genesee, Middlebury and Tioga, however, would be (65 x 2.50) - 125 or plus $37.50. No farmer could pay anything for Langford and Mardin if he were looking principally for corn ground but at a 10 percent capitalization rate he could pay $375 per acre for the Eel, Genesee, Middlebury and Tioga. If corn yields on these two groups of soil phases have risen 50 percent since the Tompkins survey was published, the second group would be worth over a thousand dollars per acre for corn and the first about $60 per acre. Actually costs have increased, of course, so the Langford and Mardin are still submarginal for cash corn while the second group of phases might provide enough net income to support $500 - $700 per acre.

The alfalfa-grass yields shown in Table 1 have a maximum range of only 60 percent. For a farmer interested primarily in producing hay, there would be a somewhat smaller difference than for corn between the prices he could pay for the soils included in Class II. The difference, however, still would be appreciable.

Similar analyses can be made for the other soil survey reports that present capability groups and yield estimates. In all cases yield variabilities, especially for Capability Classes II, III, and IV which are the most common groups of soils used for farming in New York, are very wide. There is no assurance that a farmer's capacity to pay for land out of farm income would be accurately reflected by the capability class of the soil he is trying to buy.

To use the capability classes as a guide for assessment purposes could be tragic. If a farmer on Langford or Mardin received a tax bill equal per acre to the levy made against a farmer on Genesee, the burden for him would be far greater. Even if attention were confined to the more productive soils -- those on which it is especially important to maintain farming, net incomes per acre from corn grown on Honeoye could be some $50 more than on Lima, according to Table 1. It might not be tragic to tax both farmers equally but it certainly could discourage the Lima farmer from maintaining his farm capital at a level high enough to remain competitive over the long run.

Summary and Conclusion

The New York Agricultural District Law was passed to encourage continued farming in areas where urban scatteration and speculation would cause its cessation before the land could be transferred to a higher value use. It seeks to partially accomplish its purpose by providing for farm-value assessment of farmlands.

This paper discusses only one of the several problems that have arisen in the administration of the farm-value assessment provision of the law -- the problem of providing guidelines for farmers and assessors to use in classifying farmland for the purpose of choosing from among the ceiling values set by the State Board of Equalization and Assessment the particular value to be applied to given fields and farms. (The State Board too, of course, must set their several ceiling values for each county with these guidelines in mind, else the Board's tables will not contain values appropriate to the classes chosen by the farmers and assessors.)

Present guidelines have been presented and discussed, alternatives used by other states were considered and the Soil Conservation Service Capability Groups of Soils were evaluated.

It was pointed out that the purpose of the law implies farm value assessments that are equal to what a farmer could pay for the land out of farm income alone, or, alternatively, what the land would sell for if the title did not include any development rights.

Estimates of net earning possibilities for average farmers were mentioned as important partial bases for setting ceiling values at the state level, but it was considered that such calculations would be too complicated at the local level. Instead, guidelines should be set up for farmers and assessors in terms of quantities that are fairly simple but closely correlated with long run average net earning possibilities.

While improvements are needed in the current guidelines provided by the State Board, an examination of a variety of alternatives indicates that guidelines set up in terms of the long term average yields being attained by the majority of farmers are most likely to result in assessed values that will keep land in farming until other uses are ready to occupy it. Such yield guidelines should provide flexibility enough for farmers and assessors to consider other factors affecting farm value. Such guidelines should point farmers and assessors in the direction of values that represent what lands would sell for farming in a free market with no urban pressures.

The kind of yield data that are given in the modern soil survey reports can aid greatly in applying yield guidelines, but these data need to be kept up to date to be useful. A system for classifying the soil mapping units in terms of yields for important crops could also be very helpful but the capability groups of soils now presented in the soil survey reports contain too much yield variability to be serviceable for assessment purposes.

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