



Stutsman County Tax Equalization

511 2nd Ave. S.E., Suite 102
Jamestown, ND 58401
Phone: 701-252-9035

September 15, 2014

Esteemed Members of the Taxation Committee, State Supervisor of Assessment, and tax department staff;

In response to recent discussions regarding agricultural land assessments in the state of North Dakota, I would like to provide some insight on the use of modifiers and agricultural valuation as a whole. To get perhaps a better understanding of agricultural land valuation I will reference numerous points to the current Century Code, the ag land production formula, and the system in place in Stutsman County.

According to NDCC 57-02-27.2(8)

8. *“...In determining the relative value of each assessment parcel, the local assessor shall apply the following considerations, which are listed in descending order of significance to the assessment determination:*
- a. Soil type and soil classification data from detailed or general soils surveys.*
 - b. The schedule of modifiers that must be used to adjust agricultural property assessments within the county as approved by the state supervisor of assessments....*
 - c. Actual use of the property for cropland or noncropland purposes by the owner of the parcel.*

If you break down this statute you can drill further down into the inner workings of an agricultural land valuation model. In breaking apart the three considerations that the “local assessor” shall apply we look at soil types and classifications of a soil survey. During a previous presentation by a retired employee of the NRCS, he presented how a soil survey is prepared, how certain soil features are included in a soil classification, and how to arrive at the rating of the soil. In addition, according to the NRCS regarding the crop productivity index rating:

“Crop Productivity Index (Dominant Condition)

Crop productivity index ratings provide a relative ranking of soils based on their potential for intensive crop production. An index can be used to rate the potential yield of one soil against that of another over a period of time. Ratings range from 0 to 100. The higher numbers indicate higher production potential. The rating is not crop specific.

When the soils are rated, the following assumptions are made: a) adequate management, b) natural weather conditions (no irrigation), c) artificial drainage where required, d) no frequent flooding on the lower lying soils, and e) no land leveling or terracing. Even though predicted average yields will change with time, the productivity indices are expected to remain relatively constant in relation to one another over time.”

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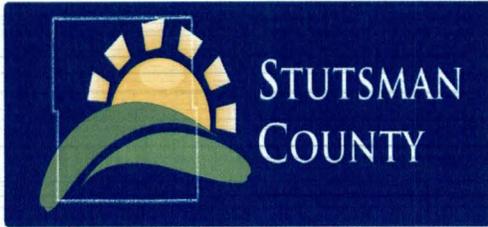
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There are a couple key statements in this information that deserve consideration. In the first paragraph it states "...higher numbers indicate higher production yield. The rating is not crop specific." There have been some taxpayers that have tried to illustrate the point that a soil has a different ratings depending on a given crop type whether it be spring wheat, corn, or soybeans. To my knowledge, these crop specific ratings do not exist. Even if they do, the feasibility for a Director of Tax Equalization to verify a land owner's crops in any given year's rotation would be a nightmare.

A second statement in the NRCS paragraphs is "Even though predicted average yields will change with time, the productivity indices are expected to remain relatively constant in relation to one another over time." This statement would serve as a basis or foundation knowing that a soil rating will remain constant and be predictable over a period of time. Couple this with the fact that a soil rating is not crop specific and the NRCS soil survey is a solid foundation according to NDCC 57-02-27.2 (8).

In my opinion, the discussion of the next two parts of NDCC 57-02-27.2 (8) containing modifiers and actual use is where the flaws in the agricultural valuation system lie. The next consideration in order of descending significance is "The schedule of modifiers that must be used to adjust agricultural property assessments within the county as approved by the state supervisor of assessments..." The use of modifiers and their application (or mis-application if you prefer) was arguably the item of most importance in the appeals of property owners at the 2014 State Board of Equalization meeting. There seems to be a significant disparity between counties, townships, local assessors, and county directors on how modifiers should be used. According to the century code, modifiers are used to adjust assessments within the county. With no firm methodology to apply a modifier, counties, soil committees, and local assessors are free to modify a soil type and effectively do what they will with the assessments of the property in their jurisdiction. This is not lending very well to the idea of Tax Equalization. Clearly there are not property owners who are being treated equally and modifiers are being abused.

The actual use of the property for cropland or noncropland purposes bears considerable weight in our (Stutsman County's) valuation system. This concept provides a land owner with the opportunity to do whatever he/she desires with their parcel of land and to have input as to how that parcel is valued. Should a landowner decide that they would like to crop their entire parcel, it will be valued as cropland. If it is pasture, it will have a pasture value assigned to those acres. Actual use has more bearing on value than our modifier does. The one issue we did have arise before our County Board of Equalization meeting on June 5, 2012, was what is cropland and what is pasture? The county commission adopted definitions that we had drafted according to the NRCS and language included in the *Guide to Assessing Agricultural Land in North Dakota, 2008 Edition*. Those definitions are:

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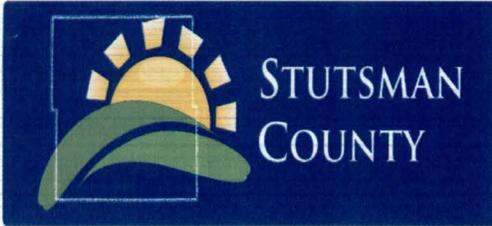
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Cropland: Land used for the production of adapted crops for harvest. Crops include alfalfa hay, sudan grass, conservation reserve program, Water Bank etc.

Pasture: Includes permanent pastureland and rangeland:

Permanent Pastureland: Land managed primarily for the production of introduced forage plants for livestock production. Pastureland cover may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Land composed of introduced or domesticated native forage species used primarily for the production of domestic livestock, which receives periodic renovation and/or cultural treatments, such as tillage, fertilization, mowing, and weed control, and controlled grazing such as fencing. (Cropland grazed in between crops is NOT permanent pastureland. These areas are to be viewed as cropland and valued accordingly.) Permanent pastureland is in areas where the present operator has no desire to change the land use or rotate crops into the field.

Rangeland: Land on which the ecological climax or potential plant cover is composed primarily of native grasses, grass-like plants, forbs, or shrubs suitable for grazing and browsing, and introduced forage species managed like rangeland. Rangeland is considered land that has never been broken and can be used for grazing.

Land Use Acres were sub-divided into eight separate categories according to actual use. They are as follows:

Cropland-	Land classified as cropland by the USDA or FSA
Pasture-	Land used for grazing or haying according to definition
Site-	Land used for agricultural building sites or your farm headquarters -this is where a farmer would store his equipment, store his grain, market his products, and essentially manage his farm operation
Trees-	Multiple row planned tree growth -multiple row and not a single row for a windbreak. When multiple rows are present, there are a few acres that are lost due to the area between rows. A single row can essentially be farmed up to the base of the tree trunk and a loss of acreage is minimal.
Roads-	Constitutional easement acres along or adjacent to assessment parcels -according to right of way easements in our recorder's office,

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acres were removed according to those setbacks listed in the documents. As a general rule, for a gravel road we removed 2 acres (2 rods wide x ½ mile) and for a prairie trail 1 acre per half mile. These acres cannot be taxed according to statute.

Undrained (wet) Cropland-

Crop acres that are too wet for cultivation as indicated by the aerial photographs.

-these acres were drawn out based off of aerial map interpretation. After the soils were calculated and exported into the Land Calc system, we then printed out aerial maps of each parcel and the location of the wet acres so we had a visual reference as to what was adjusted for wetness.

Wet Pasture-

Pasture acres that are too wet for production of forgeable material for livestock according to aerial photographs.

Waste-

All areas not included in the other land uses.

-in mapping out all the different land uses, there is a little bit of a human error factor to consider. In a parcel that has all seven different land uses, these waste acres usually only accounted for an acre or two here or there. Another instance where waste would come into play is in large bodies of water.

As far as on a valuation basis, Stutsman County developed different valuation models according to each category of land use.

Cropland, as stated previously, is strictly by un-drained PI index provided by the NRCS soil survey. After thorough research and analysis, it was determined that the average PI in Stutsman County is about 65 using the previous soil survey map units. The value for a soil type with a PI of 65 was then assigned the cropland value certified by NDSU's Department of Agribusiness for the year. Values per soil type and their un-drained PI index were then adjusted up or down from the average value and PI according to the scale. This is easily accomplished as the PI rating scale is a "true scale" from 1 to 100 and therefore adjustments can be made accordingly. Values are adjusted year to year by adjusting the multiplying "factor" of each soil type.

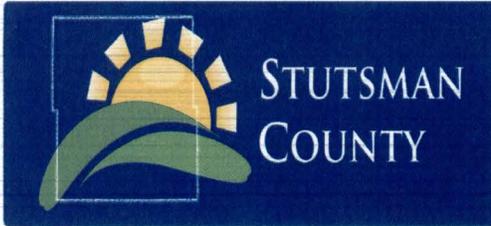
Pasture values were established along the same lines as cropland with the only difference being the use of a USDA-NRCS AUM (Animal Unit per Month) rating. This rating is a composite rating of a soil type and its ability to sustain a cow-calf pair for one month. When establishing the

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AUM ratings it was important to note that a conversion process needs to happen to convert the NRCS pounds of forgeable material to an AUM rating. Conversely, AUM ratings in how NDSU determines the average price per acre of non-cropland for each county. Values are adjusted year to year by adjusting the multiplying “factor” of each soil type.

Site values were set at a flat rate per acre of approximately the average cropland price per acre. Again, the site is where an operator stores his equipment, stores his crops, markets his crops, and manages his operation. These acres are seen to have value. Site acres were usually kept to around 3-4 acres per farmstead depending on size. Obviously some exceeded the 3 or 4 acres. Values are adjusted year to year by adjusting the multiplying “factor” of each soil type.

Trees were assessed a flat rate of approximately 30-40% of the cropland price per acre. Again, following the logic of site, it was felt that these trees carried some value as far as wind breaks, erosion control, and possibly recreation. At 30-40%, they are on the lower side of the valuation scale but still carry value. Values are adjusted year to year by adjusting the multiplying “factor” of each soil type.

Roads, of course are exempt from taxation according to statute. There was \$0 value place on road acres.

Undrained or wet cropland was one of the only conditions being modified for. Beings that all cropland is valued according to PI index, it is only appropriate that all wet cropland be valued the same manner. After the inventory of wet soils was taken, the value of those particular soil types was then adjusted downward to a level of about a 20 PI rating. This provided a value that was equivalent to some of the lower grade soils in the county. As you can see in the example below, that if soil type 5 HAM-TONKA 0-3 is “high and dry” it has a value of \$422 per acre. If that same soil is found in a slough or wet area it is adjusted down \$276 or has a net value of \$146, which is the same value of soil type 2 PARNELL SCL with a PI of 20. Values are adjusted year to year by adjusting the multiplying “factor” of each soil type.

Soil Number	Soil Type	Cropland PI	Cropland Value	Undrained Adjustment	Net Undrained Value	Pasture AUM	Pasture	Wet Pasture Adjustment	Net Pasture Value
1	SOUTHAM	7	\$51	\$22	\$29	0.2	\$29		\$29
2	PARNELL SCL	20	\$146	\$44	\$102	2.6	\$382	\$352	\$30
3	TONKA SIL	40	\$291	\$146	\$145	1.8	\$264	\$235	\$29
4	HAM-PAR 0-3	40	\$291	\$146	\$145	2.1	\$308	\$279	\$29
5	HAM-TONKA 0-3	58	\$422	\$276	\$146	1.7	\$249	\$220	\$29

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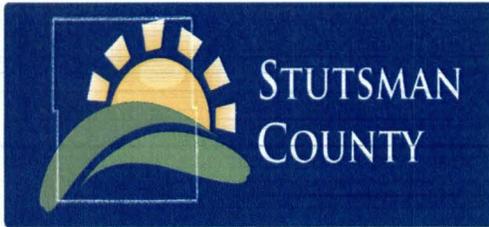
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Wet pasture value was applied in much the same manner as cropland. The value of each soil type of pasture according to the AUM rating was adjusted down to a .20 AUM value. This value in the example above turns out to be about \$30 per acre regardless of soil type. \$30 per acre also happened to be the value assigned to

Waste. In describing a waste value in wet pasture, the Jamestown Reservoir serves as a good example. In 2011 the water had reached near record levels after a devastating winter and rapid spring runoff pushed the pool level to its limits and remained there for much of the entire summer and fall. After the water levels were released and everything was back to normal, there was a definite black “ring” left around the edges of the lake. Because of the high water levels and the amount of time those levels remained high; the vegetation that was inundated was nearly killed off. It is going to take time for that vegetation to regenerate to pre-flood conditions. Much is the same with wet pasture. If vegetation is killed off, it will take a number of years to regenerate to a state that it will become forgeable material for an animal. Values are adjusted year to year by adjusting the multiplying “factor” of each soil type.

I believe that Actual Use plays a much more significant role in the determination in the valuation of a given soil type value. The actual use concept utilizes two different valuation scales according to whether or not the land is being used as cropland or non-cropland. This also is a direct correlation to the work that NDSU’s Department of Agribusiness provides to the State Tax Department and to each county every year in December. The result of that work by NDSU is the product of the production formula and is county specific data. In referencing the “*Guide to Assessing Agricultural Land in North Dakota, 2008 Edition*” a statement found on page 27 under REPORTING COUNTY ACRES TO NDSU supports my point. It states “County Tax Directors are advised that the average county agricultural land values as provided by NDSU through the state productivity formula are established by land use, not soil type. When county tax directors annually submit the county acres to NDSU, the acres submitted should closely reflect the taxable acres represented by the land use (i.e., cropland, non-cropland, and inundated).”

With actual use, you establish the valuation scale as determined by the productivity formula prior to the consideration of modifiers. Beings the productivity formula has established values of a specific county by what has already been produced, this effectively already takes into account the productive capability of the land including any factors that may affect value previously being handled by a potential modifier. There should be little to no argument for modifiers except in extreme cases such as water that has not been taken into account by land use.

I believe this is where the mis-application of modifiers was spawned. Soil committees, local assessors, and county tax directors not using the consideration of actual use have been forced to “modify” a soil’s productivity rating and respective cropland value to the point that they feel comfortable to compensate for a mis-application of value.

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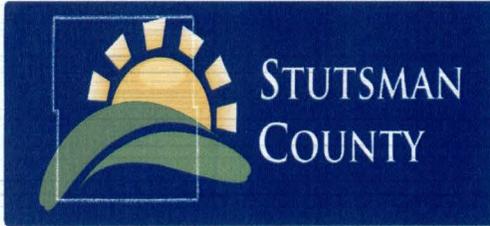
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In conclusion I would simply like to point out that the NRCS, with its full trained staff of soil scientists, data collection experts, and support staff is the agency and individuals who have the knowledge and expertise to develop a soil survey along with the respective ratings for each soil type. There should not be any wavering from these established surveys and ratings from anyone besides a certified soil scientist.

NDSU's Department of Agribusiness is the agency responsible for the data collection of all production data, crop production index calculation, cull cow income calculations, and capitalization rate calculations. These values are figured by ACTUAL USE in each county.

The soil survey data along with the actual use data from NDSU are the major components in an actual use model and they are very closely related. The two together virtually eliminate the need for modifiers and help promote equalization within a county and would also serve to go great lengths to achieving equalization in the NRCS's Major Land Resource Areas (MLRAs).

Actual Use should be placed ahead of modifiers in terms of importance in NDCC. The weight of a modifier is significant in today's version of century code and only lends to inequalities in the assessment of agricultural land.

Also, a friendly reminder that the State Tax Department's offering of Course 202, Agricultural Land Valuation will be held November 18th thru the 21st at the Comfort Inn in Bismarck for those who would be interested in sitting through that portion of education which is required of all certified county tax directors and Class 1 assessors in the state for certification purposes. The class will be taught primarily by myself with assistance from the State Tax Department staff.

Please do not hesitate to ask any questions or to discuss the Stutsman County actual use model by either calling the Stutsman County Tax Director's office at 701-252-9035 or via email at dubakken@nd.gov. Thank you for your time.

Respectfully,

Dustin Bakken
Stutsman County
Director of Tax Equalization

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Legend

Landuse

<all other values>

USE

<Null>

CROPLAND

Null

PASTURE

ROADS

SITE

TREES

WASTE

WET CROPLAND

WET PASTURE

