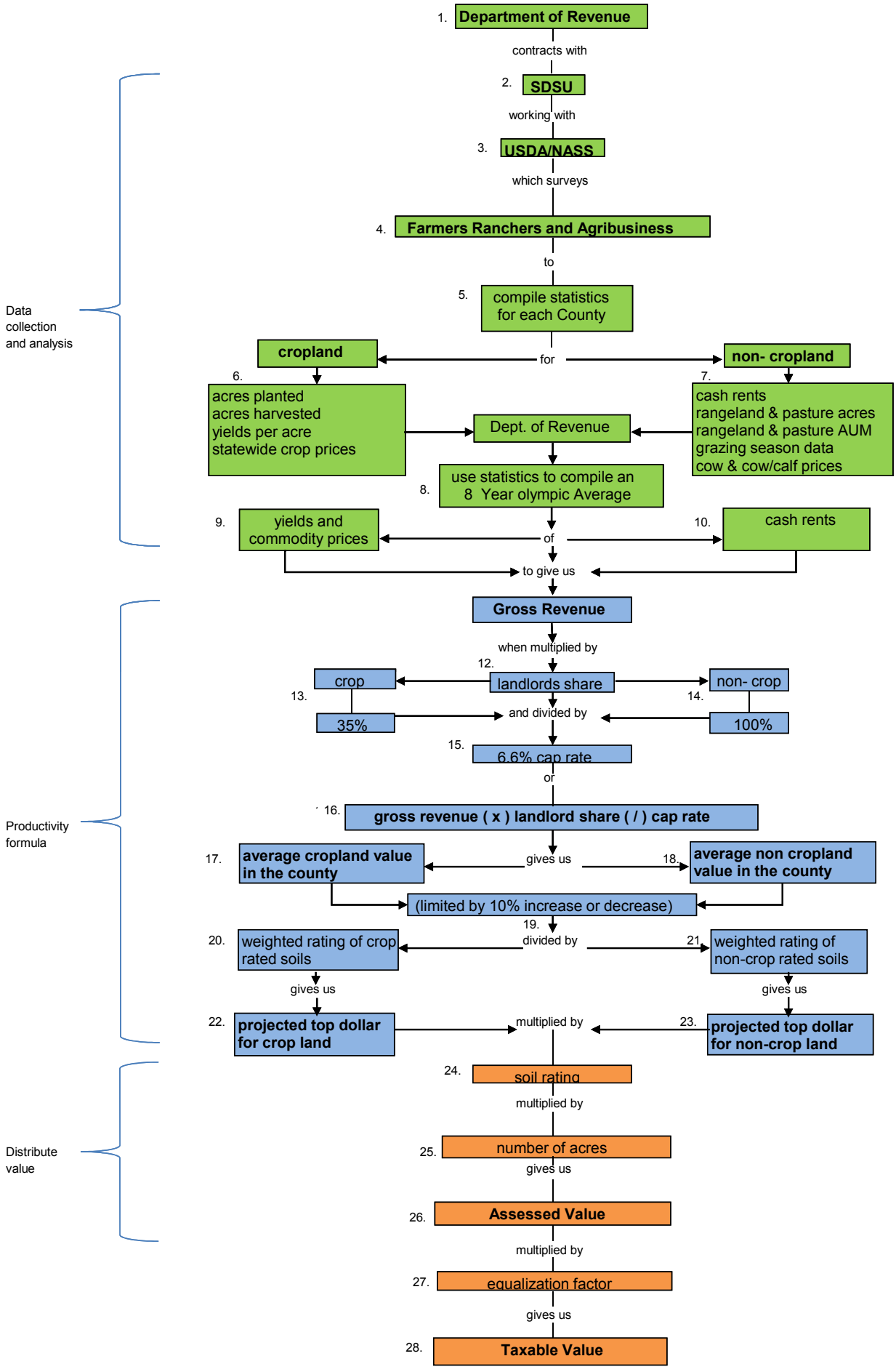
The Productivity Process and Ag Valuation



More detailed information can be found at the State of SD Official home page
www.state.sd.us/drr2/propspectax/property/home.htm

The Productivity Process and Ag Valuation

1. Beginning with the 2010 assessments, as per state law, and under the directive of The State Legislature and the guidance of the Department of Revenue, agricultural land in South Dakota is assessed based upon its productivity value.
2. The Department of Revenue and Regulation contracts with the economics Department of SDSU to produce the "productivity value" or "formula value" for the productivity valuation system.
3. The data used to establish the productivity value is from official estimates published by the United States Department of Agriculture, National Agricultural Statistics Services (USDA/NASS).
4. These estimates are based on surveys of farmers' ranchers and agribusiness.
5. Separate statistics are compiled for cropland and non-cropland.
6. The cropland database includes: acres planted, acres harvested, yield per acre and statewide crop price.
7. The non-cropland database includes: cash rents, (rangeland acres, pastureland acres, rangeland AUM's per acre, pastureland AUM's per acre, grazing season data, and statewide cow and calf prices.) The only statistic currently used is cash rents.
8. SDSU provides to the Department of Revenue USDA/NASS data to establish the gross revenue per acre in each county for an 8-year period. The period from 2001 to 2008 is used to establish the 2010 values. Using an 8 year Olympic average throws out the high and the low years and averages the remaining six years. Each year the newest year of data is added and the oldest year is discarded.
9. For crop land the actual production of each crop is multiplied by the commodity price for the crop to determine the gross revenue for the crop. The gross revenue of all the crops is added together and divided by the number of acres, to get the gross revenue per acre in the county.
10. For non-cropland an 8 year Olympic average of cash rents is used.
11. The Gross Revenue per acre is the starting point for the productivity formula.
12. The landlords share represents the percentage of the gross revenue the owner would expect to receive from owning the land.
13. The SD State Legislature in conjunction with SDSU has determined the landlords share for cropland should be 35%.
14. The landlords share for cash rents is 100%.
15. The Cap rate is set by statute at 6.6%. In a "pure" productivity valuation system, the cap rate would be determined by analyzing the market for agricultural land and would change as market conditions change. The landlord share percentages would be determined by examining contracts between landlords and tenants. For South Dakota's productivity valuation system, these parts of the formula were calculated to produce a "revenue neutral" result. The old valuation system produced a total statewide agricultural value of $18.5 billion; 85% of the value was cropland and 15% of the value was non-cropland.

The landlord share percentages and the capitalization rate were calculated to produce the same amount of statewide agricultural value, with the same percentages of cropland and non-cropland. Although the statewide amount of agricultural value in the productivity system is the same as from the old valuation system, individual counties may increase or decrease.

16. Dividing the expected revenue by the capitalization rate is a method used to establish the value for an income-producing assets, in this case the land.
17. Applying this formula gives us an average cropland value
18. Separately we also get an average non-cropland value.
19. The average cropland and average non-cropland values in the county are calculated by the department of revenue and limited to a 10% increase or decrease from one year to the next.
20. Each soil type in the county is given a rating based on its productive capability. These are totaled by the number of acres of each and averaged into what is called a weighted rating. A separate weighted rating is calculated for crop and non-cropland.
21. Non-cropland being less productive will have a lower weighted rating.
22. The average cropland value is divided by the weighted rating of crop rated soils to give us the top dollar for crop land. This would be the value of the most productive or top rated soil.
23. The same is done for non-cropland. The top dollar is given to us by the Department of Revenue. This is our "plug in" number that we use at the Assessor's office to then distribute value via the soil ratings.
24. We use the same soil survey with the same soil ratings as we always have. Each soil in the county is given a rating based on scientifically established capability classes, and yields of each crop for each soil map unit. The highest ranking soil map unit is given a 100% rating or 1.0. The others are arrayed according to their comparison with the highest rated soil map unit. The lowest rating is .01. The soil ratings simply compare one soil to another. Any given parcel is made up of several types of soils, each having their own rating and "highest and best use". Very rarely will you find a parcel of land that has all crop rated soils or all pasture rated soils. Most parcels are a mixture of crop rated and pasture rated soils. Soils with the same map unit will have the same rating and value regardless of where they are in the county. The soil ratings are based on the productivity of the soils and are a means of distributing the value to each parcel throughout the county.
25. The acres are broken down into the number of acres of each soil type per parcel.
26. The assessed value is calculated by multiplying the top dollar by the number of acres by the soil rating.
27. The equalization factor that is given to us by the Department of Revenue for each county to promotes equalization statewide, giving a taxable value in each county of 85%
28. The Taxable Value is the equalized assessed value. This is what we pay taxes on.