NEWTON CENTRAL APPRAISAL DISTRICT

Agricultural Use Intensity Standards

2019

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Introduction

One of the legal requirements for qualification of land for productivity valuation is its current and primary use "to the degree of intensity that is typical to the area."

Degree of intensity is measured by local farming and ranching practices (stocking rates, planting rates, crop rotation, fertilization methods, brush and weed control, harvesting and marketing techniques, etc.) which are those of a typically prudent farm or ranch manager. The land must be producing a product for human or animal consumption, or for a commercial trade within the agriculture economy of the State of Texas, and being farmed or ranched to the extent typical for agricultural operations. ***This test is intended to exclude land on which token agricultural use occurs in an effort to obtain tax relief.***

In determining the intensity use of agricultural properties, appraisers should recognize qualifying agricultural uses and then determine a property's intensity use according to:

- Typical management practices,
- Minimum acreage requirements (based upon soil productivity capabilities), and
- Minimum stocking or planting ratios.

To assist the Chief Appraiser in recognizing typical agricultural activities in the area, the NCAD Board of Directors has appointed an Ag Advisory Board under the authority of Section 6.12 of the Property Tax Code.

The standards included in this publication have been prepared by the Chief Appraiser and her staff and were approved by the Newton CAD Agricultural Advisory Board November 30, 2010 and are considered to be typical practices for agricultural activities in Newton County.

Qualifying Agricultural Activities

Qualifying agricultural activities include, but are not limited to:

- Cultivating the soil,
- Producing crops for human food, animal feed, or planting seed or for the production of fibers,
- Floriculture, viticulture, and horticulture,
- Raising or keeping livestock,
- Raising or keeping exotic animals or fowl for the production of human food or fiber, leather, pelts, or other tangible products having a commercial value,
- Beekeeping,
- Planting cover crops or leaving land idle for the purpose of participating in a governmental program or normal crop or livestock rotation procedure, and ,
- Wildlife management.

Minimum Tract Size

A property must be of adequate size to support a typically prudent agricultural operation according to the agricultural use type.

Because acreage requirements vary according to the agricultural use type, standards included in this publication will contain minimum acreage and use requirements for agricultural endeavors typical to Newton County.

Agricultural Use Types

Following are standards for each of the typical agricultural practices commonly occurring in Newton County. Each of agricultural use type standards will include:

- The type of agricultural products produced,
- Minimum standards for stocking or planting, and
- Minimum acreage requirements for typical operations.

Keeping Livestock & Exotic Animals

According to the NRCS Soil Survey of Newton County, over ninety percent of the agricultural use in the county is related to livestock grazing.

Typical grazing operations include:

- ***Beef production –*** the raising of beef for sale either to other operators for breeding stock or to processors for slaughter.
- ***Sheep/goat production –*** the raising of sheep and/or goats for the production of wool or mohair, meet, and dairy products;
- ***Horses –*** the raising of horses, donkeys, and mules are considered valid agricultural uses if the animals are kept:
    - for the production of colts and fillies; or
    - to assist in the management of other qualifying livestock. ***Horses stabled and/or used strictly for pets or recreational purposes do not qualify for agricultural use.***
- ***Exotic Animals –*** the raising of deer, antelope, emus, ostriches, and other types of animals not native to Texas for:
    - the production of meat, leather, or plumage, and
    - cosmetic or medicinal purposes.

Typical Management Practices

Local operators will include the following as usual activities in the production of livestock:

- Adequate fences maintained,
- Stock water provided,
- Systematic practices for
    - Herd management, and
    - Marketing animals,
- Proper land management to provide long-term forage, and
- Adequate animal units matching the carrying capacity of the land and typical agricultural operations.

Animal Unit Definitions

Based upon the standard concept of an animal unit being one 1000 pound animal the following chart can be used to calculate the number of animal units necessary to meet the minimum stocking rates:

Domestic Livestock

Animal Type	Body Weight	Head per AU (rounded)
Beef Cattle (Cow)	1000	1
Horse	1100	1
Domestic Sheep (Ewe)	130	6

Domestic Livestock

Spanish Goat (Nanny)	90	6
Boer x Spanish Goat (Nanny)	125	5
Angora Goat (Nanny)	70	8

Native Wildlife

Animal Type	Body Weight	Head per AU (rounded)
White-tailed Deer	100	7
Mule Deer	135	6
Pronghorn Antelope	90	7

Exotic Wildlife

Animal Type	Body Weight	Head per AU (rounded)
Axis Deer	150	5
Sika Deer	145	5
Fallow Deer	130	6
Elk	800	1
Red Deer	350	2
Barasigna Deer	350	2
Sambar Deer	400	2
Pere Davis's Deer	400	2
Sable Antelope	500	2
Blackbuck Antelope	75	9
Nilgai Antelope	350	2
Scimitar-horned Oryx	400	2
Gemsbok Oryx	400	2
Arabian Oryx	150	5
Addax	250	3
Ibex x Boer Goat	125	5
Impala	130	6
Common Eland	1000	1
Greater Kudo	450	2
Sitatunga	200	4
Waterbuck	500	2
Thompson's Gazelle	85	8
Mouflon/Barbado Seep	120	6
Auodad Sheep	200	4
Llama	250	3

Young of the year (calves, lambs, kids, fawns) are considered as part of the mother until weaning. After weaning, they are considered a separate animal and should be added.

For Wildlife species, the AU Equivalent is based on a normal population consisting of females, males, and yearling animals.

Soil Considerations

Agricultural production for grazing operations is directly affected by the lands ability to produce adequate forage for the sustenance of the livestock based upon the climate and rainfall along with the lands capability to produce forage. The NRCS Soil Survey of Newton county identifies some seventy-one (71) different areas within the county with similar topography and soil types. For purposes of the determination intensity standards for grazing operations, the district has categorized all property into one of its three major eco-regions, based upon its analysis of soil types, topography influences, and vegetation types reported in the NRCS Soil Survey of Newton County. Those regions are:

Soil Types

Soil is not typed by name such as; Clay, Sand, etc., but are typed by soil components.

Type I

UNDIFFERETIATED: An undifferentiated group is made up of two or more dominate soils that could be delineated individually but shown as one; like sandy soil.

Type II

ASSOCIATION & COMPLEX: An association or complex group is made up of two or more adjacent soils. There is a considerable degree of uniformity in pattern and relative extent of the dominant soils; like clay soils.

Type III

CONSOCIATIONS: In a consociation, delineated areas are dominated by a single soil taxon and similar soils. They are made p of similar components.

Use Standards

Stocking rates can vary due to a property's ability to support livestock based upon its ***pasture type*** and its ***soil productivity capabilities.***

The charts below are intended to be a representation of typical stocking rates on typical tracts in Newton County based upon these two primary characteristics.

Improved Pasture

Land where weed/brush control is practiced as well as areas where fertilizer and/or supplements to the soil are added to enhance the productivity of the land. Land may be used for grazing or hay production (see *Haylands* below).

Grasses include grasses that are seeded or sprigged and are baled or grazed by domestic livestock.

	Standards by soil type		
	Undifferetiated	***Association &complex***	***consociations***
Recommended Stocking Rate (per animal unit)	5 to 7 Acres	5 to 7 Acres	5 to 7 Acres

Native Pasture

Land that partially cleared of brush and trees with natural grasses growing on the land with no enhancements.

Grasses include native and introduced varieties of grasses where little to no weed/brush control, fertilizer, or supplements are added to the soil

	Standards by soil type		
	undiffertiated	***Association & complex***	***consociations***
Recommended Stocking Rate (per animal unit)	7 to 12 Acres	7 to 12 Acres	7 to 12 Acres

Wooded Pasture

Land that although primarily wooded, still has an agricultural use. This does not include land where timber is being propagated for harvest.

This land in itself does not qualify as pasture/grazing land and must be used in connection with land that is devoted primarily to a qualifying agricultural activity and in most cases in connection with improved or native pasture land.

Wasteland

Land that has little agricultural productivity capacity due to severe erosion or flooding; or soil types that cannot support agricultural products in the same manner as the remainder of the associated land.

This land in itself does not qualify as pasture/grazing land and must be used in connection with land that is devoted primarily to a qualifying agricultural activity and in most cases in connection with improved or native pasture land.

Drought Year Exception: ***Stocking rates may vary due to climate conditions. Reductions in herd size (and total temporary liquidation of a herd) may be considered typical during drought periods.***

Hayland

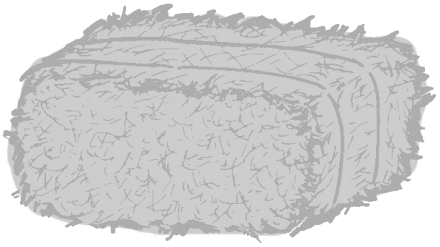
Land that is used to grow perennial improved grasses which are cut and baled for livestock consumption. Grasses will include all native and introduced grasses.

Typical Management Practices

Land used for this agricultural purpose will be classified as improved pastureland.

Standard practices include:

- Fertilizing,
- Cutting,
- Bailing,
- Hauling,
- Feeding, and/or
- Marketing



Use Standards

The following table represents the typical expectations per acre for hay production with adequate fertilizer and rainfall:

Soil type	Bales Per Cutting	Typical Cuttings Per Year
undifferetiated	1-2 Round 20-40 Square	1-2
Association & complex	1-2 Round 20-40 Square	1-2
Consociations	1-2 Round 20-40 Square	1-2

Typically, hay is not produced on tracts less than 5.00 acres.

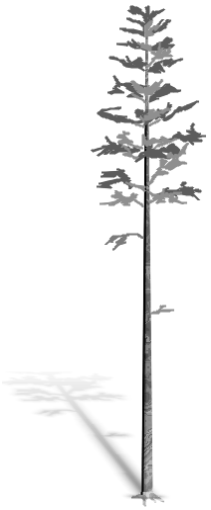
Timber Management

The Texas Constitution permits timber productivity appraisal only if the property and its owner meet specific requirements defining timber-use.

Land will not qualify simply because it has timber standing on it. In addition, timberland that is used principally for aesthetic or recreational purposes will not qualify.

Management Practices

Degree of intensity standards will vary from one timber growing area and operation to another. In general, there are three different levels of management intensity:



- ***Custodial management*** is "hands-off" management. The only activities the owner conducts are payment of property taxes and occasional visits to the site. However, it is highly unlikely that a timber property that shows no indication of management activity for two or more decades is being actively devoted to timber production.

- ***Minimal management*** may fall anywhere between custodial management and intensive management. The owner may undertake some activities, such as periodic thinning, regular site visits, or maintenance of an access road.

- ***Intensive management*** can involve many activities, including careful soil preparation for replanting, regular thinning and/or prescribed burning to reduce competing vegetation, removal of undesirable trees, following a program to check for and control insects and disease, prompt actions to control insects and disease, and building and maintaining roads to the site.

Typical management practices will include:

- Pine straw harvest every 4 to 5 years,
- Tree thinning every 8 to 10 years,
- Tree harvest every 18 to 20 years.

Land owners must provide proof of timber management practices and an intent to produce income by filing a *Timber Management Plan.* More information on preparing a timber management is available through the Texas Forestry Service at:

www.txforestservice.tamu.edu/main/default.aspx

Forest Types

There are three primary forest types recognized in the timber industry:

- **Pine -** Includes all forested areas in which the trees are predominately evergreens (green throughout the year and do not lose their leaves). In distinguishing these forest types, pine and other softwoods make up more then 2/3 of the trees.

- **Hardwood -** Includes all forested areas with a predominance of deciduous trees (trees which lose their leaves at the end of the frost-free season). In distinguishing these forest types, deciduous trees make up more than 2/3 of the trees.

- **Mixed -** Includes all forested areas where both evergreen and deciduous trees are growing and neither predominates. D In these forests, neither evergreen or deciduous trees make up more than 1/3 of the trees.

Soil Considerations

Timber-producing areas in the county are classified into four soil types, based upon a property's ability to produce timber according to estimated potential growth rates.

While the USDA Forest Service has developed five site indexes for this purpose, Texas law requires appraisal districts to classify timber production according to four soil types. Newton County has only three soil types, which is the best in Texas to grow timber. On average, Newton County grows pine trees faster than any other county in Texas. Timber is Newton County main industry.

For this reason, NRCS has developed a site index table which meets this legal requirement.

The following table represents the anticipated annual growth rate for each of the soil types associated with timber production:

NCAD utilizes this site index table as an indicator of soil productivity capabilities and classifies timberlands accordingly.

Soil Type	Site Index
1	Over 95
2	80-95
3	60-79

Use Standards

Regardless of soil location, typical timber producers plant and replant trees with 4' spacing with 10' between rows.

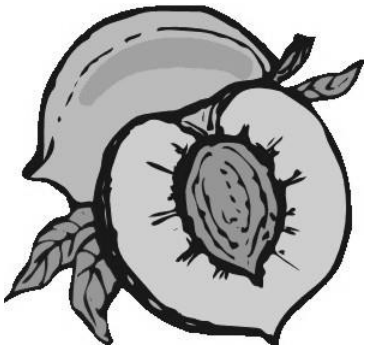
Orchards/Vineyards/Croplands

Orchards and croplands typically include lands where crops are produced to be sold commercially. Typical orchards are either pecan or peach. Vineyards typically produce grapes. Croplands typically produce vegetables including several varieties of peas and watermelons.

Typical Management Practices

Land used for this type of agricultural purpose has a regular schedule for:

- Site preparation,
- Erosion control,
- Pest control,
- Fungus control,
- Pruning. and
- Marketing.



Soil Considerations

According to the *NRCS Soil Survey of Newton County*, the county has soils with capability classes from 2 thru 7. Classes 6 and 7 are not suitable for cultivation; therefore it would not be a prudent practice of a manager wishing to maximize production to attempt cultivation of these soils.

Croplands and orchards are few in the county and operating/income/expense information appears to be consistent throughout the county. From the information in its possession, the district has determined that no adjustments between the soil classes are necessary.

Use Standards

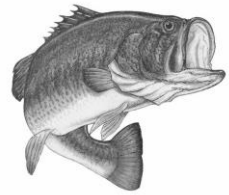
While agricultural production may be limited by eco-region, typical planting and spacing practices remains constant throughout the county.

	Spacing	Trees per Acre	Minimum Acreage	Yield
Peach - Irrigated	18-24 ft.	100	5	30-40 bushels
Peach – Dry-land	24-30 ft.	50-75	10	24-30 bushels
Pecan – Dry-land	35-50 ft.	16 - 36	10	15-25 bushels
Grapes – Irrigated	4-6 ft.	3500	5	50-70 bushels
Grapes – Dry-land	6-8 ft.	3000	3	40-50 bushels

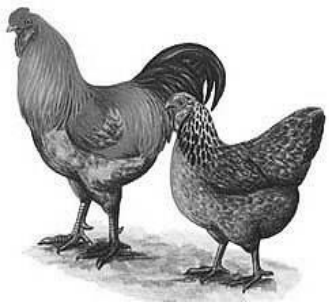
Fish

Intensity standards for the raising of fish or fish products are the same as those applied to exotic game. Commercial fish production differs from keeping game fish for purely sporting or recreational purposes. This difference is not necessarily related to the scale of the operation, nor is it related to any intent to produce income or make a profit. Raising fish is a qualified agricultural land use when all the elements of a bulk harvest are present. Taking fish by individual line is clearly a recreational activity.

Eco-region property location has no effect on this type of agricultural use.



Poultry Production



Commercial agricultural operations that are typically performed under a contract with a poultry production company. Typical operations include:

- **Broiler Houses –** where poultry is produced for meat products, and
- **Laying Houses –** where poultry eggs are collected for food and stocking purposes.

Management Practices

Typical practices include:

- Poultry house maintenance,
- Providing sufficient food and water to sustain housed poultry,
- Control of disease,

- Harvesting poultry products as produced, and
- Marketing poultry products (at market or as provided in contract).

Use Standards

Eco-region property location has no effect on this type of agricultural use.

Typical houses of 20,000 to 25,000 square feet in area require a minimum of ten acres per house.

Beekeeping

Beekeeping is a qualifying agricultural use for productivity valuation. Products produced from this agricultural endeavor include honey, and beeswax. Additionally, beekeepers can provide pollination and bee removal services.

Typical Management Practices

- Hive structure maintenance,
- Monitor bee health,
- Provide supplemental food,
- Control pests, and
- Harvest and market products.

Use Standards

Eco-region location is not a productivity consideration since bees freely fly to food sources and return to the hive to store nectar.

The state of Texas has set a minimum of 5 acres and a maximum of 20 acres to qualify beekeeping as an agricultural use.

A colony is defined as the hive, and its equipment and appurtenances including bees, comb, honey, pollen, and brood.

Intensity standards by tract size are:

Minimum of 5.0 ac	Up to 7.5 ac	Up to 10.0 ac	Up to 12.5 ac	Up to 15.0 ac	Up to 17.5 ac	Up to 20.0 ac
6	7	8	9	10	11	12

Wildlife Management

To be considered eligible for wildlife management, land must used to generate a sustaining breeding, migrating or wintering population of indigenous wild animals. Indigenous animals would be ones that are native to Texas as opposed to exotic animals that were introduced by man. Additionally, the wildlife population must be produced for human use.

Indigenous animals are native animals that originated in or naturally migrate through and are living naturally in the area as opposed to exotic animals that have been introduced to the area by man. Additionally, indigenous animals are ones that are native to Texas.

Wildlife management must be the primary use of the property. Land that is used exclusively for recreation will not qualify for this special valuation.

Typical Management Practices

Land used for the management of wildlife will be subject to management practices that encourage long-term maintenance of the population.

The district recognizes and adopts the typical practices and intensity standards of the Texas Parks & Wildlife for the Pineywoods Wildlife District as the typical intensity standards for the county.

See www.tpwd.state.tx.us/landwater/land/habitats/pineywood/ for more information.

Use Standards

Wildlife management activities are elements of the degree of intensity determination. By law, property owners must be actively engaged in performing at least three of the following seven activities:

- Maintaining the animal's habitat
- Controlling Erosion
- Controlling predators
- Providing supplemental water
- Providing supplemental food,
- Providing shelter, and
- Making census counts to determine population.

Property owners are required to prove management practices annually and submit annual updates of their Wildlife *Management Plan*.

Tract Size Requirements

Only properties that meet the minimum acreage of 12.5 acres and usage ratio of at least 92% will be considered eligible for open-space land wildlife valuation.

Properties that are a part of a wildlife management coop or association may have a minimum acreage of 10 acres with a usage ratio of 90%.

For properties that since the previous tax year have been reduced in size and have had a change in ownership, the tract size must meet the minimum size as established by the county in order to qualify for wildlife management use.

If a property does not meet the minimum size, but has threatened or endangered species, deed restrictions, property owners' agreements, conservation easements or other legally binding covenants that obligate the landowner to actively perform wildlife management, the minimum acreage for qualification is set to 10 acres with a usage of 90%.

Calculation Test

A tract's minimum wildlife use percentage is determined using a formula prescribed in PTAD Rule 9.2005:

(Total Tract Acres – 1)/Total Tract Acres = Wildlife Use Percentage

Properties for which the wildlife use percentage calculates to be less than the required minimum for stand alone or coop tracts will not qualify for the special valuation.