

Introduction to **Livestock**



**Pennsylvania
Grazing Lands
Coalition**

Species *Overview*



{ Beef cattle }

Common Name: Beef cattle

Weight: Adult: 1100-1500 lbs

Scientific Name: *Bos taurus*

Water Intake: 20 gallons per day

Dry Matter Intake: 2.5% of body weight

Uses:

Beef cattle are generally used to produce meat. Their hides and bones can also be used for various purposes. Grassfed beef is one of the most common pasture produced products.

Fencing:

There are many types of fences that can be used for bovine based on production goals. Examples include: woven wire, high tensile wire, and barbed wire - often times these wires are electrified. Posts should be placed at least every 50 ft (woven wire at least 10 ft).

Photo: Beef Research from Kyle Spradley, MU, 2014 (flickr) CC 2.0.

Common Name: Dairy cow

Weight: Adult: 1400-2000 lbs

Scientific Name: *Bos taurus*

Water Intake: 35 gal/day

Dry Matter Intake: 2.4-4.0% of body weight

Uses:

Dairy cattle are used to produce milk. Adults are generally not used for beef products, though younger calves (usually bull calves) are often used to produce veal.

Fencing:

Typically, high-tensile wire and woven wire fencing are used. It is never recommended to use barbed wire, however, as a cow could damage their udder. Posts should be placed the same as with beef cattle.

Photo: Grazing calves at Warea from Dave Young, 2010 (flickr) CC 2.0





{ Small ruminants }

Common Name: Sheep or Goat

Weight: Adult: 175-300 lbs

Scientific Name:

Water Intake: 2-3 gallons per day

Sheep: *Ovis aries*

Goat: *Capra aegagrus hircus*

Dry Matter Intake: 1.8-4.0% of body weight

Uses:

Small ruminants are often raised for meat, wool, or milk. Goats can also be used as an effective tool for managing invasive species.

Fencing:

Several types of fencing can be used to house small ruminants. The most popular being multiple strand single wire or woven wire that is <9" or <4" to prevent entanglement. Fences are often electrified.

Photo: Sheep from Dani Mettler, 2010 (flickr) CC 2.0.

Common Name: Horse

Weight: Adult: 1000-1200 lbs

Scientific Name:

Water Intake: 12 gallons per day

Equus ferus caballus

Dry Matter Intake: 2.0% of body weight

Uses:

Horses have many recreational uses, such as dressage, rodeo, and showing. They are also raised for work uses. Thousands of these strong and powerful animals are used for activities such as police work, draft power farming, and cattle ranching on a daily basis.

Fencing:

Fencing should be highly visible - avoid strand wire, as this is hard for them to see. Horses are often fenced with wire mesh (2"-4") or wooden board fence, as these minimize potential injury.

Photo: Pose from Niels Linneberg, 2011 (flickr) CC 2,0.

{ Equine }





{ Poultry }

Common Name: Chicken, Turkey, Duck

Scientific Name: *Gallus gallus domesticus*,
Meleagris, and *Anas platyrhynchos*

Dry Matter Intake:

Approx. 1/3 lb of feed per day

Uses:

Chicken can be raised for eggs (layers) or for meat (broilers). Different breeds are designed for different purposes. Chicken can also serve as fly control for bovine operations, as they will consume fly larvae.

Fencing:

Mesh electric fencing (2"-4") can be used to contain chickens and/or protect them from predators. Chickens also need a house and layers will need nest boxes.

Weight:

Chicken: 4-6 lbs

Duck: 2-3 lbs

Turkey: 23-28 lbs

Water Intake:

9 gallons/100 birds per day

*Photo: Chicken portrait from Ady
Negrean, 2014 (flickr) CC 2.0*

Common Name: Pig

Weight: 200-250 lbs

Scientific Name:

Water Intake: 1.5 gallons per day

Sus scrofa domesticus

Dry Matter Intake: About 70% of body weight

Uses:

Pigs are most commonly known for producing varieties of pork products. They also produce insulin and over 40 other medications people use worldwide. Additionally, swine heart valves are used daily to replace damaged heart valves in humans.

Fencing:

Woven "hog wire" is best used for hog operations outside. Fences should have a height of 40 inches, with 1.5-2 inches of ground clearance. Fence should have barbed wire at top/bottom, or be electrified.

Photo: Pig from Jeremy van Bedijk, 2006 (flickr) CC 2.0

{ Swine }



Glossary

of Grazing Terms

A

Accessibility

(n) The ease with which an area of vegetation can be accessed for grazing.

Acre

(n) A unit of land area equal to 4,840 square yards and 0.405 hectare.

Agroforestry

(n) Land use system that combines forestry production and crop or animal agriculture on the same ground at the same time.

Animal Class

(n) The age or sex group an animal belongs to.

Animal Unit (AU)

(n) A standardized measurement expressing the feed requirements of different kinds of livestock. Used to calculate forage needs. Different for each species.

Annual Crop / Plant

(n) A crop plant type that completes its life cycle within one year and dies. Must be replanted each year.

Annual Range

(n) Range of which principle forage plants are self-perpetuating annual, herbaceous species.

B

Bare Ground

(n) Land surface not covered by vegetation, rock, or litter.

Body Condition Score (BCS)

(n) A useful management tool for determining nutritional needs of livestock. Uses a numeric score to estimate overall health and body energy reserves to choose supplemental feeding.

Browse

(n) Leaf and twig growth of non-herbaceous vegetation available for animal consumption; such as shrubs, woody vines, and trees.

(v) To search for, or consume, browse.

C

Carrying Capacity

(n) The maximum stocking rate possible for a pasture that can be sustained over a defined period without long-term damage to vegetation or other land resources. May vary from year to year.

Cropland

(n) Land devoted to the cultivation of crops. See also Forage Crop.

D

Dry Matter

(n) Everything contained in a feed sample except water; this includes protein, fiber, fat, minerals, etc. In practice, this is the total weight of feed minus the weight of water in the feed.

F

Feed Supplement

(n) Food stuffs with particular nutritive value that are added to a basic diet, such as forage, to supplement its deficiencies. Includes trace elements and macro feeds, such as protein supplements.

Forage

(n) Plants other than separated grains, which can be consumed by grazing animals or harvested for feeding. See also browse, herbage, mass.

(v) To search for, or to consume forage.

Forage Allowance

(n) A forage-to-animal relationship: the weight of forage dry matter per unit area, and the number of animal nits or forage intake units at any one time point in time. The inverse of grazing pressure.

Forage Crop

(n) A crop of cultivated plants produced to be grazed or mechanically harvested as feed for animals. Does not include separated grains.

Forage Mass

(n) The total dry weight of forage per unit area of land, usually above ground level and at a defined reference level.

Forb

(n) Any herbaceous broadleaf plant that is not a grass and is not grass-like.

G

Grass

(n) Plant species that are members of the plant family Fabaceae.

Grass-like

(v) Describes vegetation that is similar to grass in appearance but does not belong in the Fabaceae family. Usually members of the plant family Cyperaceae or Juncaceae.

Graze

(v) To search for, or to consume forage.

Grazing Cycle

(n) The number of days from when the first paddock is grazed to when it is grazed again. A full cycle of all

the paddocks. Includes one period of rest and one period of grazing for the beginning paddock.

Grazing Land

(n) Any land with vegetation that is grazed or that has the potential to be grazed by animals.

Grazing Management Unit

(n) The grazing land area used to support a group of animals for one grazing season. Can be a single area or subdivided.

Grazing Pressure

(n) An animal-to-forage relationship. The number of animal units or forage intake units to the weight of forage dry matter per unit area at any one point in time.

Grazing Season

(n) The time period during which grazing can be practiced on a specific piece of land. Based on season, climate, and forage production.

H

Herbaceous

(adj) Non-woody vegetation.

Herbage

(n) The biomass of herbaceous plants generally above ground but also including edible tubers and roots. Does not include separated grains.

L

Land Use Plan

(n) A landowner plan for addressing the land use and conservation goals for a property. Includes an inventory of natural features and resources present and goals for resource and farm management.

Legume

(n) A pod and fruit bearing plant with nitrogen-fixing bacteria in root nodules.

M

Mast

(n) Non-herbaceous vegetation available for animal consumption; such as fruits and seeds of shrubs, woody vines, and trees.

Meadow

(n) a tract of grassland where productivity of forage is modified due to characteristics of the landscape position or hydrology.

O

Overgrazing

(n) Grazing with exceeds the recovering capacity of the available forage. Leads to pasture degradation and lower stocking rates.

P

Paddock

(n) A grazing area that is a subdivision of a grazing management unit. Is enclosed and separated from other paddocks to ensure rest time.

Prescribed Burning

(n) Intentionally applying controlled fire to a pasture to control undesirable vegetation or disease, to prepare for seeding, or to improve forage production.

R

Residue

(n) Forage remaining on land after harvest.

Rest Period

(n) A period during which pasture is relieved from all grazing pressure in order to rest and regrow quickly.

Riparian

(n) The transition area between uplands and permanent water bodies.

S

Silvopasture

(n) A production system which combines forestry and livestock

production on the same land at the same time.

Stock piling

(v) Allowing forage to accumulate for grazing at a later period, such as for autumn or winter grazing.

Stocking rates

(n) The relationship between the number of animals and the grazing management unit utilized over a specified time period.

Sward

(n) Herbaceous plants that are characterized by relatively short growth and continuous ground cover above and below the surface.

V

Vegetation

(n) Plant life in general.

Vegetative

(n) Non-reproductive parts of plants. Includes leaf and stem.
Wetlands

Y

Yield

(n) Amount of a crop that was harvested, through grazing or mechanical harvest, per unit of land area.

Grazing Management Methods

Alternate Stocking

The repeated alternation of two paddocks, resting one paddock while grazing the other.

Continuous Grazing

Animals are stocked on a single, continuous pasture, for the length of the grazing season. Grazing is unrestricted and uninterrupted throughout the whole pasture for the season.

Creep Grazing

Juvenile livestock are allowed to graze high quality forage areas that their mothers cannot access. This can be achieved by providing fences the smaller animals can get under but their mothers cannot.

Deferred Grazing

Also known as stockpiling. Forage production is deferred from grazing until later in the season. Usually used in the fall in order to decrease hay needs for early winter.

First-Last Grazing

Also known as leader-follower grazing, and forward grazing. The herd is sorted into nutrient requirement groups. The higher nutrient requirement groups are rotated through the paddocks before the lower ones. An

example is with growing calves in front of cow-calf pairs.

Forward Creep

See First-Last Grazing and Creep Grazing.

Frontal Grazing

A grazing method that allocates forage within a land area by means of a sliding fence that the animals can advance themselves.

Intensive Grazing Management

Grazing management that aims to increase production or efficiency through a relative increase in stocking rates, forage utilization, labor, resources, or capital. Can be achieved using grazing methods that utilize a greater amount of labor or capital resources.

Intermittent Grazing

An irregular system where livestock are grazed for indefinite times at random intervals.

Mixed Grazing

A system that grazes two or more species of animals on the same land unit within the same season. Can graze together or separately.

Mob Grazing

A rotational system that maintains a high stocking rate on a small paddock for a very short period of time.

Prescribed Grazing

Describes any grazing system that has a prescribed plan to improve production through efficiency, forage production, animal productivity, or pasture improvements.

Rotational Grazing

Also known as Rotational Stocking. Animals are concentrated in small paddocks for relatively short periods of time and rotate through the paddock cycle. The ultimate goal is uniform and efficient utilization of forage. Grazing period varies according to number of livestock, paddocks, and management goals.

Seasonal Grazing

Grazing restricted to one or more specific seasons of the year.

Sequence Grazing

Grazing multiple land units with different forage species compositions. Takes advantage of the life-cycles, nutrient differences, and pairings between forage species.

Set Stocking

Allowing a fixed number of animals to graze a fixed area of land when grazing is allowed there.

Strip Grazing

Animals are held in small areas by a moveable electric fence. Each strip provides one or two days of grazing, then the fence is moved forward. A back fence may or may not follow.

Livestock Names:

Barrow

Castrated male swine.

Boar

Mature male swine, often wild or feral.

Bucks or Billies or Rams

Male goats.

Bull

Male cow.

Bullock

In America refers to a young bull, in the rest of the world refers to an older castrated male.

Calf

A very young cow that hasn't been weaned.

Cob

A stocky, rather small horse, or a large pony.

Colt

Young male horse that has not been neutered.

Dairy or Milking Cow

A cow that has given birth to a calf.

Dam

The mother of a horse.

Damsire

The sire of a dam of a horse, essentially the grandfather.

Does or Nannies

Female goats.

Ewe

Female sheep.

Farrow

A litter of piglets.

Feeder Calves

A very young cow that has been weaned but is less than a year old, generally male.

Filly

A young female horse normally under four years old, which has not given birth.

Foal

Young horse under one year old, either sex.

Fresh or Freshened

A cow or first calf heifer who has recently given birth.

Gelding

A castrated male horse of any age.

Gilt

Female pig that has never given birth.

Heifer

A female cow younger than 3 years old that has not had a baby.

Hog

Domestic swine, generally fully grown.

Kids

Very young goats.

Lamb

Young sheep.

Mare

Adult female horse, usually over the age of three.

Maverick

Unbranded calf or yearling cow of either sex.

Pig

Immature domestic swine.

Piglet

Very young pig.

Polled Cattle

Cows without horns.

Ram

Male sheep.

Shoat

A younger hog that has been weaned

Sow

A mature female swine.

Springer

A cow or heifer close to calving.

Stallion or Stud, Entire, or Bull

Mature male horse, not castrated, over the age of four.

Steer

Castrated male cow.

Veal Calves

Young male cows intended to produce veal.

Weaner

A very young cow that has been weaned but is less than a year old.

Weanling

A very young horse that has been weaned from its mother, but is less than a year old.

Wethers

Castrated male goats or sheep.

Working Steer

Draft cattle under four years old

Yearlings

Cow or horse between one and two years old.

More Info?

Breeds?

Looking for more information about specific livestock breeds? Go to the Oklahoma State University Dept. of Animal Science Breeds of Livestock database:

www.ansi.okstate.edu/breeds

Pennsylvania Grazing Lands Coalition

For more information about the newest grazing technology and methods visit our website:

www.paglc.org



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Cover Photo:

Sheep grazes at PaSu Farms, Heidi Schuyt Photography, 2014 (flickr) CC 2.0