



American  **G**rassfed  **A**ssociation

Grassfed Dairy Standards ©

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Introduction

The American Grassfed Association (AGA) Grassfed Standards incorporate a forage based diet on open pasture, animal health and welfare, no antibiotics, no added hormones. AGA Grassfed standards are written by and for producers to support American family farms and provide a fair and sustainable market for their products, better for the consumer, better for the earth and better for the animal. The standard recognizes that the US is geographically and climatically diverse and that grassfed dairy production without limited science based supplementation may not be feasible in some regions of the country.

These standards apply to all farms and ranches approved by the American Grassfed Association (AGA) for the production grassfed products destined for certification by AGA. Only licensees certified as following these AGA Grassfed Standards may use AGA's American Grassfed Association ® logos, Association trademarks, service marks, and/or design marks hereafter called AGA Design Mark on their food and agriculture product packaging and promotional material.

Grassfed Dairy Standards

- **Prohibited:** the practice is banned
- **Must:** a standard must be adhered to as directed.
- **Recommended or Should:** referenced standard is viewed as the best practice and should be adhered to, but other methods may be accepted if the goal is achieved.

3.1 Forage Protocol

3.1.1

All livestock production must be pasture centered.

3.1.2

Grass and forage, will be the feed source consumed for the lifetime of the ruminant, except for milk consumed prior to weaning. The diet will be derived solely from forage appropriate to the species comprising grass (annual and perennial), forbs (e.g. legumes, Brassicas), browse, or cereal grain crops harvested in the pre-dough stage.

3.2 Pasture Management, Grazing, Confinement and Stockpiled Forages

3.2.1

All AGA grassfed ruminants must be provided maximum access to pasture and must optimize their dry matter intake grazed from pasture during the grazing season.

Note: This does not apply to temporary confinement at night or during roundups, sorting, weaning, milking time, freshening and transportation.

3.2.2

Pastures will provide forage, in sufficient quality and quantity, and to maximize grazing for grassfed ruminants during the grazing season. See "grazing season" in definitions.

3.2.3

Grassfed ruminants must graze pasture throughout the entire grazing season which will not be less than 150 days per year.

Note: Producer may request a temporary variance for the minimum days on pasture requirement due to extended inclement weather conditions.

3.2.4

Grazed pasture must provide at least 60% of a grassfed ruminant's dry matter intake averaged throughout the grazing season.

Note: Producer may request a temporary variance for dry matter intake requirement due to extended inclement weather conditions.

3.2.5

All farms/ ranches will have in place a written pasture management and grazing plan that supports biological diversity, natural resources and soil fertility.

3.2.6

Existing wildlife and wildlife habitat will be managed to allow native wildlife on the farm/ ranch to coexist with domestic animals on the farm/ranch.

3.2.7

AGA Grassfed dairy ruminants may only be removed from pasture during inclement weather or events that may threaten the health, safety and welfare of the ruminant, natural resources or when conditions compromise the ability to graze.

Note: Exclusion from pasture should be based on the ruminant's ability to graze and not the calendar.

3.2.8

AGA grassfed dairy ruminants removed from pasture must have access to the outdoors unless conditions jeopardize the health, safety, or welfare of the ruminant.

3.2.9

Sacrifice pastures are permissible to protect surrounding pastures from overuse during extended inclement weather conditions or times of slow pasture re-growth (drought).

3.2.10

Incidental consumption of seeds from grain or cereal grain naturally attached to herbage, forage, and browse is only permitted in an un-harvested crop that complies with 3.2.13.

3.2.11

Grazing of harvested grain fields is permitted if 75% of the field is in vegetative re-growth and the average height of the re-growth is 8".

3.2.12

Deliberately waiting until grain or cereal grain crop has set seed before grazing or harvesting for stored forage is prohibited.

3.2.13

Producer is to ensure that only non-GMO seeds are planted for the production of on-farm forage.

3.3 Supplemental Feeding and Nutritional Supplements

3.3.1

AGA grassfed dairy ruminants may be fed hay, haylage, balage, silage without grain (see silage in definitions), forage products, crop residue without grain, and other approved AGA forage products and supplement feedstuffs, Appendix A, while on pasture or as necessary when removed from pasture as per 3.2.7 or at milking time.

3.3.2

The feeding of Forage products and supplemental feedstuffs not listed in Appendix A, Approved AGA Forage Products and Supplement Feedstuffs, is prohibited.

Note: Producers may request the AGA Grassfed Certification Committee to evaluate Forage Products and Supplemental Feedstuffs not listed in Appendix A for approval. Supplements with an adverse effect on the nutritional quality of the milk produced or have negative health benefits on the animals fed will not be permitted.

3.3.3

Feeding of approved forage products and supplement feedstuffs must comply with the feeding guidelines in Appendix A.

3.3.4

Approved AGA Forage Products and Supplemental Feedstuffs may be fed as an enticement during milking times year round.

3.3.5

Feeding AGA Grassfed ruminants grain is prohibited.

3.3.6

Mineral and vitamin supplements, with no grain carriers, may be provided free choice, or may be mixed into supplemental forage feed to adjust the animal's nutrient intake and to correct deficiencies in its total diet.

3.3.7

Forage produced in a fodder system must be fed in compliance with Appendix A.

3.3.8

Receipts, ingredient lists and /or tear tags must be provided to the auditing/inspection agency for all supplements and for all seeds planted for on farm forage production.

3.3.9

A log of supplemental feedstuffs fed must be kept including type of supplement, timing and amounts.

Note: 3.3.8 does not apply to mineral and vitamin supplements.

3.3.10

Intentional feeding of any banned feedstuffs listed in Appendix B to AGA Grassfed ruminants is prohibited.

3.3.11

The intentional feeding of Genetically Modified Organisms (GMO's) to AGA Grassfed ruminants is prohibited.

3.4 Marketing AGA Grassfed Dairy Ruminants as AGA Grassfed Meat

3.4.1

AGA Grassfed Dairy ruminants may be marketed as AGA Grassfed meat if the animal was raised to the AGA Grassfed Ruminant Standards from birth.

3.4.2

Dairy ruminants treated with antibiotics or fed animal by-products at any point in their lives may not be marketed as AGA Grassfed meat.

3.5 Animal Health and Welfare

3.5.1

All livestock production methods and management must promote animal health, safety and welfare, including calf management, handling, transport and slaughter.

3.5.2

Producers must have a written herd health plan, preferably in consultation with a veterinarian updated every two years; or, participate in an ongoing third-party animal welfare program that includes on-farm visits.

3.5.3

Living conditions for all livestock must accommodate the health and natural behaviors of the animals. Shade, shelter, fresh air and clean drinking water must be made available on a daily basis for dairy animals. Pastures, paddocks and shelter must be large enough to allow all dairy animals to graze/feed without crowding or competition for food.

3.5.4

Electric cattle prod use is prohibited except in instances to prevent risk of injury to the animal or handler.

3.5.5

AGA Grassfed dairy ruminants must not be fed or treated with antibiotics except as provided in 3.5.6.

Note: Producers must notify auditing/inspection agency within 10 days of treatment of prohibited medications.

3.5.6

Sick or injured animals must be treated. Treated animals must also comply with 3.5.7 and 3.5.8 below

3.5.7

If prohibited medications are required for treatment, the animal must be permanently identified with an ear tag, leg band or other clear and visual form of separation to designate that they no longer qualify for AGA Grassfed Dairy program.

Note: Provided the identification and tracking comply with 3.5.8 below the animal may still be kept with other ruminants that qualify for AGA Grassfed Dairy certification.

3.5.8

Animals treated with antibiotics must be tracked and records must be kept to demonstrate that non-grassfed milk from treated animals does not enter the AGA Grassfed Dairy system. Daily milk withholding records including dates should document removal of milk from the AGA Grassfed Dairy program to ensure no commingling with AGA Grassfed dairy milk can take place.

3.5.9

The producer must develop and maintain a written record of all vaccines, medications, or other substances used in his/her animal health care program. Records must be provided to the auditing/inspection agency.

3.5.10

The producer must keep receipts for all antibiotics administered. Antibiotic receipts and records of use must be available on demand to the auditing/inspection agency.

3.5.11

Administering hormones to AGA Grassfed ruminants is prohibited.

3.5.12

The feeding of animal by-products to AGA Grassfed ruminants is prohibited.

3.5.13

Genetically modified or cloned animals are prohibited.

3.5.14

The use of organophosphates is prohibited.

3.6 Raising Replacement AGA Grassfed Dairy Ruminants

3.6.1

With newborn dairy cattle up to 6 months of age: if the health, safety or welfare becomes compromised, feeding of approved supplements is allowed with no limitations. See Appendix A for list of approved supplements.

3.6.2

Dairy animals less than 6 months of age may be fed milk.

3.6.3

Dairy animals less than 6 months of age are exempt from pasture and outdoor requirements in Section 3.

3.7 Animal Identification, Sourcing and Trace-Back

3.7.1

AGA grassfed dairy ruminants must be traceable by written record throughout their entire lives, from birth to harvest. Complete and up-to-date records must be maintained to identify all animals raised, purchased, sold, harvested, or used for milk production as part of the AGA Grassfed Dairy program.

3.7.2

Each producer must develop and maintain an animal identification system to identify each animal or batch of animals.

3.7.3

Dairy ruminants one year of age or younger may be brought into the AGA Certified Grassfed Dairy program from farms/ranches of AGA members in good standing or certified organic herds by affidavit with documentation they were raised under AGA Grassfed Dairy Standards. AGA Grassfed Supplier Affidavit (Appendix C) must be used for all purchased ruminants.

Note: Bringing animals in by affidavit under 3.7.3 will only be allowed until 12/31/2018. After this time all animals brought on to farm must come from certified herds as per 3.7.4

3.7.4

Dairy ruminants of any age may be brought in from AGA Certified Grassfed Dairy members in good standing or from Certified Organic herds. If sourced ruminants from Certified Organic herds were not raised to AGA Grassfed Dairy Standards conditions in 3.7.8 must also be met.

3.7.5

Replacement animals born to certified grassfed dams must be raised to AGA Grassfed Dairy Standards.

3.7.6

All records are to be maintained for a minimum of 24 months after the animal is sold or harvested.

3.7.7

All required records must be in sufficient detail as to demonstrate compliance with AGA standards to the auditing/inspection agency.

3.7.8

Milk from animals brought in under 3.7.4 from Certified Organic herds not raised to AGA Grassfed Dairy Standards must be withheld from the AGA Grassfed dairy program for a minimum of 60 days. Daily milk withholding records including dates should document removal of milk from the AGA Grassfed Dairy program to ensure no commingling with AGA Grassfed dairy milk can take place.

3.7.9

An entire organic dairy herd may be converted to AGA Dairy following 60 days of adherence to AGA Dairy Standards. Following this transition period, milk may be certified as AGA Dairy.

3.7.10

An entire conventional dairy herd may be converted to AGA Dairy if managed to AGA Dairy Standards for a period of one year prior to the production of milk or milk products marketed as AGA Grassfed Dairy.

3.7.11

Animals transitioned to AGA Grassfed Dairy from conventional or organic herds are not eligible for grassfed slaughter.

3.7.12

Once converted to AGA Grassfed Dairy production all animals must remain under grassfed management.

3.7.13

If for any reason due to animal health or other extenuating circumstances a dairy herd is removed from AGA certification or the transition is not completed, an additional transition to grassfed dairy production may be allowed at the discretion of the auditing/inspection agency provided that:

1. There is at least one year from discontinuation of certification or transition to the start of the next AGA Grassfed Dairy transition;
2. The producer provides a plan to the AGA to show they are working toward correcting any mineral imbalances in their soil;
3. The producer provides a plan to show they are working toward improving forage quality and can harvest and/or purchase the quantity needed to feed the dairy herd to maintain health under grass fed management; or,
4. The producer files a request for a reprieve from conditions specified in 1, 2, and 3 if terminated grassfed certification is due to extenuating circumstances.

AGA Grassfed Dairy Standards Definitions

Balage or Round Bale Silage: A practice that involves cutting the forage crop with conventional hay harvesting equipment, allowing the forage to wilt to between 30 and 60 percent dry matter, then baling it into tight bales and wrapping them immediately. Bales are wrapped mechanically using bale-wrapping equipment that tightly stretches several layers of plastic around the hay to exclude oxygen and allow proper ensiling. (5)

Boot Stage: The flag leaf is fully expanded, but the awns and grain head are not visible. The grain head can be felt in the flag leaf sheath. (4)

Brassicas: A family of very productive annual forage vegetables used as transition crops between pasture renovations or as a supplemental feed source for extending the grazing season when other forages are less productive, examples include turnips, rape, and kale.

Browse: 1) Leaf and twig growth of shrubs, woody vines, trees, cacti, and other non-herbaceous vegetation available for animal consumption. 2) To browse: the consumption of browse in situ by animals. (6)

Crop Residue: Portion of plants remaining after fruit and/or seed harvest, said mainly of grain crops such as corn stover or of small grain straw and stubble. (6)

Diet: The feed regularly offered to or consumed by an animal, see ration. (6)

Dough Stage: The kernel is filled with starch and is well formed. There is no milky fluid, only a rubbery, dough-like substance. (4)

Dormancy: In a state of being dormant when no active growth is occurring. (7)

Enticement: a feedstuff used with management practices but is not a part of the overall dairy animal ration

Ensiled: Having been subjected to anaerobic fermentation to form silage. (2)

Extenuating circumstances: include but are not limited to: barn fire, family emergencies, federal or state mandated conditions, etc.

Feedstuff: any of the constituent forages, feeds or supplements of an animal ration. (7)

Forage: any herbaceous plant material that can be grazed or harvested for feeding, except for grain.

Forb: Any herbaceous broadleaf plant that is not a grass and is not grass-like. (6)

Fruit: 1) n. The usually edible reproductive body of a seed plant, one having a sweet pulp associated with the seed. 2) n. A product of fertilization in a plant with its modified envelopes or appendages, specifically the ripened ovary of a seed plant and its contents. (7)

Genetically modified organism: many methods used to influence the growth or development of organisms by means that are not possible under natural conditions or processes. Such methods include cell fusion, microencapsulation and macroencapsulation, recombinant DNA technology (including gene editing, gene deletion, gene doubling, introducing a foreign gene and changing the position of genes when achieved by recombinant DNA technology). Such methods do not include

the use of traditional breeding, conjugation, fermentation, hybridization, in vitro fertilization, or tissue culture.

Grain: Seed from cereal plants, caryopsis. Corn, wheat, rye, oats, rice, millet, sorghum, barley, triticale.

Grass: Member of the plant family *Poaceae*. (6)

Graze: **1)** the consumption of standing or residual forage by livestock; **2)** to put livestock to feed on standing residual forage

Grazing Season: The period when pasture is available for grazing, due to natural precipitation or irrigation.

Growing Season: The number of days between the last spring freeze date and the first fall freeze date.

Hay: The aerial parts of forage crops stored in the dry form for animal feeding. (2)

Haylage: Haylage is the feed produced by storing a forage crop, dried to a moisture level of about 45-55% in an airtight silo. (2)

Herbage: 1.) The biomass of herbaceous plants, other than separated grain above ground but including edible roots and tubers. (6) 2.) n. Green plants especially when used or fit for grazing. (7)

Hydrolysis: The splitting of a substance into the smaller units by its chemical reaction with water. (2)

Inclement Weather: Weather that is violent, or characterized by temperatures (high or low), or characterized by excessive precipitation that can cause physical harm to a species of livestock. Production yields or growth rates of livestock lower than the maximum achievable do not qualify as physical harm (9)

Kernel: A mature ovule of a grass plant with the ovary wall fused to it. Same as caryopsis.(6)

Legumes: Members of the *Fabaceae* plant family (formerly known as the *Leguminosae* family). Legumes are dicots (produce two seed leaves), produce seed in a pod, have netted leaf venation, and usually have a taproot type of root system. Most legumes can interact with bacteria of the genus *Rhizobium* to fix nitrogen in nodules on their roots. Legumes may have one of four types of seedheads. These seedhead types are the raceme, the spike, the head or umbel. (5)

Meadow: Area covered with grasses and/or legumes, often native to the area, grown primarily for hay but with secondary grazing potential. (6)

Mineral: 1) n. a solid homogeneous crystalline chemical element or compound that results from the inorganic processes of nature. 2) n. Any of the various naturally occurring homogeneous substances obtained usually from the ground. 3) n. a synthetic substance having the chemical composition and crystalline form and properties of a naturally occurring mineral. (7)

Native Pasture: Native vegetation (predominantly herbaceous) used for grazing in untilled areas. The term tame or introduced is used instead of native for pastures that include mainly nonnative species. (6)

Natural Resources of the Operation: The physical, hydrological, and biological features of a production operation, including soil, water, wetlands, woodlands, and wildlife.

Non-fibrous carbohydrate (NFC): The fraction of a feedstuff made of sugars and starch. (8)

Paddock: A grazing area that is a subdivision of a grazing management unit and is enclosed and separated from other areas by a fence or barrier. (6)

Pasture: 1) n. Forages harvested by grazing animals. 2) n. An area of land with 75% forage cover or unbroken land on which livestock may graze at will.

Pastureland: Land devoted to the production of indigenous or introduced forage for harvest primarily by grazing. Pastureland must be managed to arrest succession processes. (6)

Pericarp: The ripened and variously modified walls of a plant ovary, especially those contributing the outer layer in a cereal caryopsis. (6)

Prairie: Nearly level or rolling grassland originally treeless; usually characterized by fertile soil. (6)

Range: Land supporting indigenous vegetation grazed or that has the potential to be grazed and is managed as a natural ecosystem. Includes graze able forestland and rangeland. (6)

Rangeland: land on which the indigenous vegetation (climax or natural potential) is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing use and is managed as a natural ecosystem. If plants are introduced, they are managed as indigenous species.

Rangelands include natural grasslands, savannas, shrub lands, most deserts, tundra, alpine communities, coastal marshland, and wetland meadows. (6)

Ration: the total feedstuffs (diet) allotted to one animal for a 24-hour period. (6)

Residue: that which remains of any substance. (2)

Roughage: Any feed $\geq 18\%$ in crude fiber and $\leq 70\%$ in total digestible nutrients (TDN), on an air-dry basis and are less than 5.5% crude fat. Roughage from GMO crops are prohibited.

Sacrifice pasture: A pasture where animals may move about and express their natural behaviors and where forage can be grown during the grazing season.

Seed: 1) n. Ripened mature ovule comprising an embryo, a seedcoat, and a supply of food that, in some species is stored in the endosperm. 2) v. To sow, broadcast or drill small-seeded grasses, legumes, or other crops. (6)

Seedhead: See inflorescence.

Separated Grain: Grain detached from cereal crop plants.

Silage: Silage as defined by AGA is forage harvested before, or when in, the milk stage (pre-dough) of grain formation.

Soil and Water Quality: Observable indicators of the physical, chemical, or biological condition of soil and water, including the presence of environmental contaminants.

Starch: A polysaccharide having the formula (C₆H₁₀O₅). Many plants store energy in starch. Starch is a major component of most livestock rations (especially fattening rations) and is highly digestible. Yields glucose upon complete hydrolysis. (2)

Stockpiled Forage: Forage allowed to accumulate on a pasture or paddock for grazing at a later period. Forage is often stockpiled for autumn and winter grazing after or during dormancy or semi-dormancy, but stockpiling may occur during the year as a part of a forage management plan. Stockpiling can be described as forage accumulation. (6)

Stover: The matured cured stalks of such crops as corn or sorghum from which the grain has been removed. A roughage. (6)

Stubble: The basal portion of the stems of herbaceous plants left standing after harvest. (6)

Supplement: A nutritional additive (salt, protein, phosphorus, etc.) intended to improve the nutritional balance and remedy deficiencies of the diet. (6)

Supplemental Feeding: The practice of supplying feedstuffs to correct nutritional deficiencies in an animal's "natural" diet.

Vegetative: Non-reproductive plant parts, (leaf and stem) in contrast to reproductive plant parts (flower and seed) in developmental stages of plant growth. The non-reproductive stage in plant development. (6)

Vegetative State: Stage prior to the appearance of fruiting structures. (6)

Vitamin: 1) n. Any of various organic substances essential in minute quantities to the nutrition of most animals and some plants that act especially as coenzymes and precursors of coenzymes in regulating metabolic processes

Appendix A - Approved AGA Forage Products and Supplement Feedstuffs

Approved Forage Products and Recommended Feeding Guidelines:

Alfalfa, grass, and forage cubes or pellets may be fed to AGA Grassfed dairy ruminants as a minor management tool or during times when grazing is diminished. Supplemental feeding of cubes or pellets for dairy ruminants of all ages will be limited to .5% of body weight per day.

Forage produced in a fodder system may be fed to AGA Grassfed dairy ruminants if ALL conditions below are met:

- As an optional source of live grass feeding during the non-grazing season.
- A 98% germination rate is achieved.
- A quantity no greater than 1.75% of body weight or a maximum of 20 lbs per day.
- No mycotoxin/molds are present.

Small grains harvested for forage before, or when in, the milk stage of grain formation (pre-dough stage).

Note: Forage product cubes and pellets should not be a part of the overall, permanent feeding plan. When forage product cubes and pellets are in use, the producer should have a plan in place to discontinue long term use.

AGA Approved Supplemental Feedstuffs and Recommended Feeding Guidelines:

Non GMO Sugar Products may be fed up to 4 lbs/head/day.

Note: Research has shown depressed fiber digestibility and milk protein yield at higher than 5 lbs/hd/d.

Non GMO beet pulp, whole beets, ground or sliced whole beets or citrus pulp may be fed at a level no greater than 2% of body weight per day.

Kelp
Salt, vitamins and minerals without grain carriers
Apple cider vinegar

Note: Producers may request the AGA Grassfed Certification Committee to evaluate Forage Products and Supplemental Feedstuffs not listed in Appendix A for approval. Supplements with an adverse effect on the nutritional quality of the milk produced or have negative health benefits on the animals fed will not be permitted.

Note: Producers may request a temporary variance from the quantity restrictions for approved forage products and supplement feedstuffs when confronted with extended inclement weather conditions.

Appendix B – Banned AGA Grassfed Dairy Feedstuffs

AGA Banned Feedstuffs

The following list of banned feedstuffs is not an exclusive list. The AGA Certification Committee may review and amend this list periodically. Grain products in any form such as whole, ground, cracked, flaked, silage, distilled (distiller grains) or toasted is prohibited.

Barley
Corn
Oats
Rye
Rice
Triticale
Wheat
Millet
Sorghum
Soy products
Milk replacer
Antibiotics
Growth promoters

References

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- (3). Cow-Calf Management Guide, Cattle Producer's Library; Ag Communications Center, University of Idaho, The Fermentation Process and Silage Troubleshooting, Small Grain Silage for Beef Cattle, Haylage, Corn Silage
- (4). A Guide to Cereal Forage for Profitable Dairy Management; RSI, Resource Seeds, Inc. 1998
- (5). Ball, D.M., C.S. Hoveland, and G.D. Lacefield. 2002. P. 1-321. Southern Forages, Modern Concepts for Forage Crop Management 3rd. ed. Potash & Phosphate Institute (PPI) Norcross, GA
- (6). Barnes, R.F., D.A. Miller, and C.J. Nelson. 1995. Glossary. P.487-501. In R. F. Barnes, D.A. Miller, and C. J. Nelson (ed.) Forages, Vol. I, An Introduction to Grassland Agriculture, 5th. ed. Iowa State University Press, Ames, IA.
- (7). Merriam Webster's Collegiate Dictionary. Tenth Edition is an excellent source for important words, including but not limited to: Browse, cereal, crop, dicot, forage, forb, grain, grass, graze, grassland, herb, herbage, herbaceous, monocot, pasture, range, rangeland, seed, silage, etc.
- (8). VanSoest, P.J., 1994. Nutritional Ecology of the Ruminant. Cornell University press. Ithaca, New York. 476 pp.
- (9) USDA National Organic Program 7CFR Part 205 as of October 26, 2015.