



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

Grassfed Dairy Standards ©

Land Health Standards

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Introduction

The American Grassfed Association (AGA) Grassfed Standards require livestock production practices that include a forage-based diet derived from 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 to provide a fair and sustainable market for their products, better for the consumer, better for the earth and better for the animal.

These standards apply to all farms and ranches certified by the American Grassfed Association (AGA) for the production grassfed dairy products. Only licensees certified as compliant with the 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 materials.

Recommended Best Practices for AGA Grassfed Dairy

AGA Best Practices are recommendations to ensure the highest level of integrity regarding land, animal and environmental management.

§1.1 Livestock & Breeding Program

- 1.1.1 Pasture based calf raising is strongly encouraged.
- 1.1.2 AGA dairy breeds should be suited to the climate, geography, soil type and natural environment of the farm/ranch in which they are raised.
- 1.1.3 Breeding programs should reduce the number of assisted or caesarian births. Records should be kept for assisted or caesarian births.
Note: If assisted births and caesarian births are routine breeding program and/or genetics should be modified to reduce these incidents.
- 1.1.4 Grain is a prohibited feed for AGA Grassfed Dairy animals of all ages. The AGA recognizes that some producers may require time to adapt their calf management practices to full compliance with this standard. Consequently, a temporary variance for grain feeding is permitted for calves for two-years. Conditions for the temporary variance are:
 - a) The temporary variance for grain feeding only applies to calves aged one year or less.
 - b) All other dairy animals on farm are prohibited from consuming grain.
 - c) The temporary grain feeding variance will end on **January 1, 2019.**
 - d) After January 1, 2019 both producers in their 60 day transition period (see §3.7.9.) and producers with existing certified herds are prohibited from feeding grain to AGA ruminants of any age.
- 1.1.5 AGA Grassfed Dairy calves should not be harvested at less than 14 months of age.

§1.2 Animal Handling

- 1.2.1 Low stress animal handling is recommended. Animal handlers should demonstrate training in low stress stockmanship techniques that produce low stress to the animals and the handlers.
- 1.2.2 All livestock should be allowed to express their natural and instinctive behaviors.

§1.3 Land Health

- 1.3.1 Stocking rates must be appropriate to the soil, climate and geography of the farm/ranch.
- 1.3.2 Pasture management and grazing plan should minimize animal concentration areas by moving supplemental feed areas and placement of mineral.
- 1.3.3 Pastures should be managed to minimize or eliminate the use of synthetic fertilizers, herbicide and pesticides.
- 1.3.4 Existing riparian areas must be protected and maintained.

General Standards

§2.1 The Language Used in the Standards

The following words are used to convey requirements for use of specific standards within the AGA Grassfed Dairy Certification Program:

- **“Must”**: Implementation of the standard is required.
- **“Recommended”** or **“Should”**: A best practice that should be adhered to, but other methods may be accepted if the goal is achieved.
- **“Prohibited”**: The practice is not allowed.

§2.2 Record Keeping

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

§2.3 Processing and Product Traceability

- 2.3.1 All processing and handling facilities must:
 - a. Be inspected and certified as a dairy processor for AGA.
 - b. Maintain a written plan documenting how separation and segregation of AGA products from non-AGA products is maintained at each step in the processing environment.
- 2.3.2 Processing facility inspections may be done as an addendum with other food safety or organic inspections.

Grassfed Dairy Standards

§3.1 Forage Protocol

- 3.1.1 All livestock production must be pasture-based.
- 3.1.2 Grass and forage must be the feed source consumed for the lifetime of the ruminant, except for milk consumed prior to weaning. The diet must be derived solely from forage appropriate to the species:
- a) Grass (annual and perennial),
 - b) Forbs (e.g. legumes, brassicas),
 - c) Browse, or
 - d) Cereal grain crops harvested in the pre-dough stage.
 - e) Harvested forages

§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 except during:
- a) Temporary confinement,
 - b) Nighttime confinement
 - c) Roundups
 - d) Sorting
 - e) Weaning
 - f) Milking times
 - g) Freshening
 - h) Transportation
- 3.2.2 Pastures must 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 must not be less than 150 days per year. Grazing season may or may not be continuous.
- Note: Producer may request a temporary variance for the minimum days on pasture requirement due to extended inclement weather conditions. (See Guidance section of this Manual for more details.)*
- 3.2.4 Grazed pasture must provide at least 60% of a grassfed ruminant’s dry matter intake (DMI) averaged throughout the grazing season.
- Note: Producer may request a temporary variance for dry matter intake requirement due to extended inclement weather conditions. (See Guidance section of this Manual for more details.)*
- 3.2.5 All farms/ ranches must have in place a written pasture management and grazing plan that supports biological diversity, natural resources, and soil fertility.
- 3.2.6 The use of synthetic herbicide and pesticide is prohibited with these exceptions:
- a.) Weeds and invasive plants or pests have not been effectively controlled using other sustainable/holistic means.
 - b.) Prescriptive individual plant treatment (IPT) of herbicide to remove invasive plant species.

- 3.2.7 If the conditions of 3.2.5 above are met and synthetic herbicides and/or pesticides are used these conditions must also be met:
- A written prescriptive Integrated Pest Management (IPM) program must be included as part of the required pasture management and grazing plan. Plan must be provided to the inspector/inspection agency at the time of inspection.
 - Livestock must be removed from all areas, pastures or rangelands before application of synthetic herbicide and/or pesticide.
 - Livestock must not be allowed to graze treated areas, pastures or rangelands for double the manufacturers listed withdrawal period or at least 30 days whichever is longest.
 - Livestock must be removed from treated areas, pastures or rangelands for double the manufactures listed withdrawal prior to slaughter or at least of 90 days whichever is longest.
 - Avoid application near riparian areas to protect streams and wildlife habitat.
 - Herbicides and pesticides must be mixed and applied according to manufacturer recommendations and application rates.
 - Records must be kept showing product used, mixture of product, date of use, and application area. Records must be provided to the inspector/inspection agency at the time of inspection.
- 3.2.8 Existing wildlife and wildlife habitat must be managed to allow native wildlife on the farm/ ranch to coexist with domestic animals on the farm/ranch.
- 3.2.9 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.*
- 3.2.10 AGA grassfed dairy ruminants removed from pasture must have access to the outdoors unless conditions jeopardize the health, safety and welfare of the ruminant or there is a risk of damaging soil structure due to wet soil conditions.
- 3.2.11 Sacrifice pastures are permissible to protect surrounding pastures from overuse during extended inclement weather conditions or times of slow pasture re-growth (drought).
- 3.2.12 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.
- 3.2.13 Deliberately waiting until grain or cereal grain crop has set seed before grazing or harvesting for stored forage is prohibited.
- 3.2.14 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".

§3.3 Supplemental Feeding and Nutritional Supplements

- 3.3.1 AGA Grassfed Dairy ruminants may be fed while on pasture or as necessary when removed from pasture as per §3.2.7 or at milking time:
- hay & haylage
 - balage
 - silage*
 - forage products*
 - crop residue without grain
 - small grains harvested in the pre-dough stage
 - roughage*
 - approved AGA forage products and supplement feedstuffs, Appendix A,
- * See Definitions

- 3.3.2 AGA Grassfed Dairy animals must receive a balance diet, including protein, energy, minerals and vitamins and be appropriate to the animals age and stage of production.
- 3.3.3 The feeding of forage products and supplemental feedstuffs not listed in Appendix A, Approved AGA Forage Products and Supplement Feedstuffs, is prohibited.
- 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 Intentional feeding of grain or any banned feedstuffs listed in Appendix C to AGA Grassfed ruminants is prohibited and may result in loss of certified grassfed status.
- 3.3.6 Mineral and vitamin supplements, with no grain carriers¹, 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 inspection agency for all supplements.
- 3.3.9 A log of supplemental feedstuffs fed must be kept including type of supplement, timing, and amounts. Log must be provided to inspector.
- Note: 3.3.9 does not apply to mineral and vitamin supplements.*

§3.4 Marketing AGA Grassfed Dairy Ruminants and Calves 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 AGA Grassfed Dairy breeding animals or calves fed or treated with any products in Appendix B at any point in their lives are not eligible to be marketed through the AGA Grassfed Ruminant Program. Records must be kept ensuring that treated animals do not enter the AGA Grassfed program.

§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.

¹ In more than de minimis amounts if equivalent product is not commercially available.

- 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. Treated animals will lose their certified grassfed status.
- 3.5.6 Sick or injured animals must be treated to relieve symptoms. Animals treated with prohibited medications must also comply with §3.5.7 and §3.5.8 below.
- 3.5.7 If AGA Grassfed Dairy animals must be treated with prohibited medications to comply with 3.5.6 the animal must be permanently identified at time of treatment 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.
- 3.5.8 Animals treated with prohibited medications must be tracked. Records must be kept demonstrating 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.
- Note: Provided the identification and tracking comply with the above standard the animal may still be kept with other ruminants that qualify for AGA Grassfed Dairy certification*
- 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 inspector/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 inspection agency.
- 3.5.11 If pasture management or sustainable/holistic alternatives to control worms, lice or other parasites is ineffective synthetic endectocide may be used.
- Note: The need for parasite control should be confirmed by routine monitoring of fecal samples.*
- 3.5.12 If endectocides are used to control parasites select an endectocide least impactful on dung beetles and micro flora and use during cold weather when dung beetle populations are inactive.
- 3.5.13 AGA Grassfed Dairy ruminants fed or treated with any products listed in Appendix B is prohibited and will result in loss of animal's Certified Grassfed Dairy status
- 3.5.14 The use of organophosphates, beta agonists or ionophores, or any product containing these, where an animal might ingest or absorb them, is prohibited and will cause loss of animal's Certified Grassfed Dairy status.
- 3.5.15 Genetically modified or cloned animals are 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. (*See Guidance section of this Manual for more details.*)
- 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 3.2.

§3.7 Animal Identification, Sourcing and Trace-Back

3.7.1 AGA Grassfed Dairy animals must be born and raised in the USA.

3.7.2 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.

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

3.7.4 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 D) must be used for all purchased ruminants.

3.7.5 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 be met.

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

3.7.7 All records are to be maintained for a minimum of 12 months after the animal is sold or harvested.

3.7.8 Milk from animals brought in under §3.7.5 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 must 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 inspection agency provided that:

- a. There is at least one year from discontinuation of certification or transition to the start of the next AGA Grassfed Dairy transition;
- b. The producer provides a plan to the AGA to show they are working toward correcting any mineral imbalances in their soil;
- c. 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,
- d. 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 Land Health Standards Introduction

The American Grassfed Association Land Health Standards are an optional add on inspection module for producers wanting to confirm land health practices. AGA Land Health Standards is not a stand-alone inspection module, it must be used as part of an AGA Grassfed Ruminant Inspection. Inspector is to fill out an AGA Land Health Standards checklist (Appendix F).

§5.1 Land Health Standards

5.1.1 All Land Health Best Practices in AGA's current Ruminant Standard (Section 1.3) are followed. See below:

- 1.3.1 Stocking rates must be appropriate to the soil, climate and geography of the farm/ranch.
- 1.3.2 Pasture management and grazing plan should minimize animal concentration areas by moving supplemental feed areas and placement of mineral.
- 1.3.3 Pastures should be managed to minimize or eliminate the use of synthetic fertilizers, herbicide and pesticides.
- 1.3.4 Existing riparian areas must be protected and maintained.

5.1.2 The following additions must be included in the required written pasture management and grazing plan (3.2.4):

- a. Describe the planned grazing movements in detail.
- b. List the number of paddocks/pastures.
- c. Describe how adequate recovery/regrowth of forage is ensured before re-grazing.
- d. Describe how animal numbers are adjusted and the planned move is adapted to ensure adequate forage per animal unit is available.
- e. Describe how weather conditions are monitored and used to adapt the grazing plan to prevailing weather conditions.
- f. Explain how forage quantity and quality play into the timing of movement.

5.1.3 A written Pasture Management/Grazing Plan must be submitted to inspector and forwarded to AGA.

5.1.4 Grazing records must be kept that track grazing dates, animal numbers and rainfall to

demonstrate methods outlined in the pasture management/grazing plan are adequate. Savory or HMI grazing charts meet this requirement. Grazing records are to be shown to inspector during inspection, but not submitted to AGA.

5.1.5 Inspector to visually verify an adaptive planned grazing system during inspection.

Definitions ¹

AGA Grassfed Market Animal: Any ruminant animal marketed as Certified AGA Grassfed meat products.

AGA Grassfed Ruminant: Any ruminant animal raised in an AGA Grassfed production system.

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.

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.

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.

Commercially Available: The ability to obtain a product in an appropriate form, quality or quantity

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.

De Minimis: Amount too trivial or minor to merit consideration, <1.5%.

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

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

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

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.

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.

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

Forage Products: Products derived exclusively from forage.

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

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.

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*.

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.

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

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.

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

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.

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

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 seed heads. These seed head types are the raceme, the spike, the head, or umbel.

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

Milk Stage: Initial phase of grain development, after the flowering stage. In corn, the R3 stage. About 18 to 22 days after silking, when the kernels are mostly yellow and contain “milky white fluid.”

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.

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.

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

Nighttime Confinement: Collecting of animals from dusk until dawn in a fenced enclosure, generally utilizing temporary electric fence or a designated sacrifice area, to keep animals protected from predators.

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

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.

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.

Pasture-based: Land management systems where livestock are raised on pasture and allowed to graze freely and express their natural behaviors

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

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

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

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.

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.

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

Residue: That which remains of any substance.

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

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.

Seed head: 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.

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.

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

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

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

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.

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

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

When supplements are used it seems logical these supplements should be looked upon as substitutes or replacements for the pasture that is not available. The supplements should be nutritionally comparable in the major nutrient content of the forage being replaced. The nutrients considered should be uniformly available (nutritionally speaking) and include; energy, fiber, non-fibrous carbohydrate (NFC) and protein. Since most pasture grasses, legumes and mixtures contain 20% to 30% NFC, it seems axiomatic that supplements should contain levels of NFC along with a high level of highly digestible fiber. This rationale is that the NFC percentage along with the fiber content is an acceptable criterion for judging of supplemental feedstuffs. The goal of any supplementation would be to not change the nutrient profile of the meat product produced while ensuring that the daily nutritional requirements of the animal is met.

Feeds or ingredients not listed must be approved in advance by AGA's Certification committee. Feeds or ingredients with an adverse effect on the nutritional quality or have negative health benefits on the animals fed will not be allowed.

Bio Supportive Supplements:

Kelp
Apple cider vinegar

Sprouted Fodder:

Forage produced in a sprouted fodder system may be fed to AGA Grassfed ruminants if these conditions are met:

1. Forage produced in a sprouted fodder system is an optional source of live grass feeding only during the non-grazing season.
2. A 98% germination rate is achieved for the seed used to grow the forage.
3. The weight of the daily ration of foraged from the sprouted fodder system is up to 1.75% of body weight/day or a maximum of 20 lbs./hd/day, whichever is less.
4. Mycotoxin/molds should not be present in the material being fed.

Molasses Products:

- a. Sugar Products or Molasses Products may be fed up to 4 lbs./head/day on a dry matter basis as an energy source during the non-growing season or periods of low forage quality.
- b. Molasses Products may be a carrier in mineral or vitamin blocks and tubs. It may be a binder or ingredient in pellets or cubes.

Molasses Based Protein Tubs:

AGA Grassfed ruminants may be supplemented with molasses-based protein blocks or tubs to maintain nutrient and rumen balance during periods of low forage quality and inclement weather if these conditions are met:

- a) The block or tub must list a targeted daily intake of 3 pounds or less. (chemically hardened or cooked blocks/tubs)
- b) The block or tub may use approved plant protein products.
- c) The ingredient tag must not list any Banned Products listed in Appendix B.
- d) The ingredients tag must not list prohibited Feeds or Ingredients in Appendix C.¹

Note: Any tub or block that lists protein % first on its guaranteed analysis tag is considered a protein tub.

Manufactured Feeds, Cubes, Pellets:

AGA Grassfed ruminants may be fed approved feeds, cubes or pellets to ensure the animal's well-being during periods of low forage quality or inclement weather or as an enticement during sorting, round up and pasture rotation if these conditions are met:

- a) Manufactured feed that lists Forage Products, Roughage Products or Plant Protein Products not listed in Appendix C as an ingredient are allowed.
- b) Amount fed not to exceed 0.625% of body weight per day (25% total daily intake) and 1% of lifetime intake when calculated on a dry matter basis.
- c) The ingredient tag must not list any Banned Products listed in Appendix B.
- d) The ingredients tag must not list prohibited Feeds or Ingredients in Appendix C.¹

AGA Plant Protein Products:

Approved protein products may be ingredients in a ration or manufactured product. AGA Plant protein Products must be ≤ 30% NFC.

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 or which have negative health benefits on the animals are not 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.

¹ In more than de minimis amounts if equivalent product is not commercially available.

Appendix B: Banned Products

Feeding or administering the products listed below to AGA Grassfed Ruminants will cause loss of Grassfed Certification status.

Antibiotics
Growth promoters
Feather Meal
Animal by-products
Milk replacer containing antibiotics, growth promoters and/or any animal by-products aside from whey and other dairy products.

Appendix C – Prohibited Feeds & Ingredients

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

Barley
Corn
Oats
Rye
Rice
Triticale
Wheat
Millet
Sorghum
Soy protein products²
Urea
Biuret
Sunflower Meal

² soy oil as dust control in mineral at no greater than 1.5% of formula is allowed

Appendix D AGA Grassfed Dairy Supplier Affidavit

AGA Grassfed Dairy Supplier Affidavit

Supplier Name: _____

AGA Membership #: _____

Farm/Ranch name: _____

Mailing address: _____

City: _____; State: _____; Zip Code: _____

Phone: _____; Mobile: _____ E-

mail: _____; Fax: _____

AGA Producer Name: _____

AGA Membership # _____

Farm/Ranch name: _____

Mailing address: _____

City: _____; State: _____; Zip Code: _____

Phone: _____; Mobile: _____ E-

mail: _____; Fax: _____

Animal Delivery or Transfer Date: _____

Number of Animals Delivered or Transferred: _____

As a supplier of animals to an AGA Grassfed Dairy producer, this letter serves as documentation that all animals provided to the above AGA Grassfed Dairy producer have been raised under AGA Grassfed Dairy Standards. I have read and understand the AGA Grassfed Dairy Standards and these animals listed below comply with these standards.

Signature: _____; Date: _____

AGA Grassfed Dairy Supplier Affidavit

Livestock Species _____

No.	Ear Tag #	Date of Birth	Sex	Breed	Color Description
1					
2					
3					
4					
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