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Grassfed Ruminant Standards ©

Grassfed Stocker Program 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 growth 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 of grassfed ruminant meat 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 Ruminants

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 AGA livestock breeds should be suited to the climate, geography, soil type and natural environment of the farm/ranch in which they are raised.
- 1.1.2 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.

1.1.3 AGA Grassfed Market animals 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

These words are used to convey requirements for specific standards within the AGA Grassfed Ruminant 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.

The terms AGA Grassfed Ruminant and AGA Grassfed Market Animal are used through these Standards. The term AGA Grassfed Ruminant refers to all ruminant animals. The term AGA Grassfed Market animal is used to refer to animals marketed as Certified AGA Grassfed meats or by products.

§2.2 Record Keeping

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

2.1.2 Records must be kept demonstrating all AGA Grassfed Market animals are raised to AGA's Grassfed Standards from birth to harvest.

Grassfed Ruminant Standards

§3.1 Forage Protocol

- 3.1.1 All livestock production must be pasture/grass/forage 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
 - 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) Roundups
 - b) Sorting
 - c) Weaning
 - d) Transportation
 - e) Nighttime confinement

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- 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 Feeding AGA ruminant animals in confinement or a Concentrated Animal Feeding Operation (CAFO) is prohibited.
- 3.2.4 All farms/ ranches will have in place a written pasture management and grazing plan that supports biological diversity, natural resources and building soil fertility.
- 3.2.5 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.
- 3.2.6 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) 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.

b) Livestock must be removed from all areas, pastures or rangelands before application of synthetic herbicide and/or pesticide.

c) 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.

d) 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.

e) Avoid application near riparian areas to protect streams and wildlife habitat.

f) Herbicides and pesticides must be mixed and applied according to manufacturer recommendations and application rates.

g) 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.

- 3.2.7 Existing wildlife and wildlife habitat must be protected and managed to allow native wildlife on the farm/ ranch to coexist with domestic animals on the farm/ranch.
- 3.2.8 AGA Grassfed 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.

- 3.2.9 AGA Grassfed 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.
- 3.2.10 Sacrifice pastures are permissible to protect surrounding pastures from overuse during extended inclement weather conditions or times of slow pasture re-growth (drought).
- 3.2.11 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.
- 3.2.12 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".
- 3.2.13 Deliberately waiting until grain or cereal grain crop has set seed before grazing or harvesting for stored forage is prohibited.

§3.3 Supplemental Feeding and Nutritional Supplements

- 3.3.1 AGA Grassfed ruminants on pasture or as necessary when removed from pasture per 3.2.8 may be fed:
 - a. hay & haylage
 - b. balage
 - c. silage*
 - d. forage products*
 - e. crop residue without grain
 - f. small grains harvested in the pre-dough stage
 - g. roughage*
- * See Definitions
- 3.3.2 AGA Grassfed ruminant animals must receive a balanced diet, including protein, energy, minerals and vitamins and be appropriate to the animals age and stage of production.
- 3.3.3 AGA Grassfed Market animals may be fed approved supplements to ensure the animal's well-being during periods of low forage quality or inclement weather. See Appendix A for approved grassfed supplements.
- 3.3.4 The feeding of forage products and supplemental feedstuffs to AGA Grassfed Market animals not listed in Appendix A, Approved AGA Forage Products and Supplement Feedstuffs, is prohibited.
- 3.3.5 Feeding of approved forage products and supplemental feedstuffs to AGA Grassfed Market animals must comply with the feeding guidelines in Appendix A.
- 3.3.6 Intentional feeding of grain or prohibited feeds & ingredients in Appendix C to AGA Grassfed Market animals is prohibited and may cause loss of Certified Grassfed status.
- 3.3.7 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.
- 3.3.8 Forage produced in a sprouted fodder system must be fed in compliance with Appendix A.
- 3.3.9 Receipts, ingredient lists and/or tear tags must be provided to the inspector for all supplements.
- 3.3.10 A log of supplemental feedstuffs fed to AGA Grassfed Market animals must be kept including type of supplement, timing and amounts fed. Log must be provided to inspector.

Note: 3.3.10 does not apply to mineral and vitamin supplements.

§3.4 Marketing AGA Breeding Animals and Calves as AGA Grassfed Meat

- 3.4.1 AGA Grassfed ruminant breeding animals may be marketed as AGA Grassfed meat if the animal was raised to the AGA Grassfed Ruminant Standards from birth to harvest.
- 3.4.2 AGA Grassfed 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.

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

§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 provided daily for animals. Pastures, paddocks and shelter must be large enough to allow all 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 Market animals 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 Grassfed Market 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 Market animals are 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 Ruminant program.
- 3.5.8 AGA Grassfed Market animals treated with prohibited medications must be tracked. Records must be kept demonstrating that meat from treated animals does not enter the AGA Grassfed Program.

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 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 inspector/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 endectocide's are used to control parasites, producers should select an endectocide that is least impactful on dung beetles and micro flora and use during cold weather when dung beetle populations are inactive.
- 3.5.13 AGA Grassfed Market animals fed or treated with any products in Appendix B is prohibited and will cause loss of animal's Certified Grassfed status.

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- 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 for AGA grassfed Market animals and will cause loss of animal's Certified Grassfed status.
- 3.5.15 Genetically modified or cloned animals are prohibited.

§3.7 Animal Identification, Sourcing and Trace-Back

- 3.7.1 AGA Grassfed Market Animals must be born and raised in the USA.
- 3.7.2 AGA Grassfed Market animals 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 and harvested as part of the AGA Grassfed Ruminant 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 Sourced market animals over one year of age, brought in from other farms/ranches, must come from AGA certified producers. AGA Grassfed Supplier Document (Appendix D) must be used for all purchased animals.
- 3.7.5 Sourced market animals one year of age or younger may be brought in from AGA Grassfed Stocker Ruminant Producers or AGA certified producers. AGA Grassfed Supplier Document (Appendix D) must be used for all purchased animals.
- 3.7.6 All records are to be maintained for at least 12 months after the animal is sold or harvested.

AGA Grassfed Stocker Program Introduction

The American Grassfed Association (AGA) created a new classification of Producer membership, Stocker Producer, to facilitate AGA Certified Producers to source animals for finishing and market as AGA Certified Grassfed. The Grassfed Stocker Program recognizes that animals 12 months of age or under for calves, 6 months for lambs and kids, are less likely to have been exposed to prohibited feeds, medications or practices that would otherwise disqualify them for the AGA Grassfed Ruminant program. The Grassfed Stocker Program creates a lower cost, \$100/yr., membership classification for Stocker Producers. The membership fee can be paid for by the Stocker Producer (seller) or an AGA Certified Grassfed producer (buyer) wishing to source animals for their program. A Stocker Producer is eligible to market calves under 12 months of age, lambs and kids under 6 months of age, to Certified AGA Producers for the duration of their annual membership.

Grassfed Stocker Standards are a streamlined version of AGA Grassfed Ruminant Standards that include only Standards relevant to calves under 12 months of age, lambs and kids 6 months of age. Sellers fill out a Stocker Producer checklist (Appendix E) to verify that all animals were raised to AGA Standards. An AGA Grassfed Supplier document (Appendix D) is also filled out to individually identify each animal for traceability.

§4.1 Grassfed Stocker Program Standards

- 4.1.1 AGA Grassfed Stocker Ruminants must be born and raised in the USA.
- 4.1.2 Production methods and management must promote animal health, safety and welfare.
- 4.1.3 AGA Grassfed Stocker Ruminants must be provided maximum access to pasture and not raised in confinement or a Concentrated Animal Feeding Operation (CAFO.
- 4.1.4 Feeding AGA ruminant animals in confinement or a Concentrated Animal Feeding Operation (CAFO) is prohibited.
- 4.1.5 AGA Grassfed Stocker Ruminants were only fed grass, forage, stored forages without grain or AGA forage products and Supplemental feedstuffs while on pasture, except for milk consumed prior to weaning.
- 4.1.6 AGA Grassfed Market animals were not fed grain, grain by-products, feather meal, animals byproducts or milk replacer containing antibiotics or growth promoters.
- 4.1.7 AGA Grassfed Stocker Ruminants may not be fed or treated with antibiotics, organophosphates, beta agonists, ionophores or products containing these substances.

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 (Section1.3) 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.

AGA Grassfed Standards Definitions

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.

AGA Grassfed Stocker Ruminant: Any ruminant animal 12 months of age or under for calves, 6 months for lambs and kids raised to AGA Grassfed Stocker Ruminant Standards or AGA Grassfed Ruminant Standards.

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 (Grain): 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.

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

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

Enticement: A feedstuff used with management practices but is not a part of the overall 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.

Family Farm: AGA defines a Family Farm as a farm in which the farm owners own the animals and are responsible for all management decisions regarding operation of the farm/ranch.

Feedstuff: The constituent forages, feeds or supplements of an animal ration.

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Forage: any herbaceous plant material that can be grazed or harvested for feeding, except for grain. Including small grains harvested or grazed in the pre-dough stage.

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 impossible under natural conditions or processes. Such methods include cell fusion, microencapsulation and macro encapsulation, recombinant DNA technology (including gene editing, gene deletion, dene 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. 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 or the *Fabaceae* plant family (formerly known as the *Leguminoseae* 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. The various naturally occurring homogeneous substances obtained usually from the ground. 3) n. a synthetic substance having the chemical composition and crystalline from 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.

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Roughage: Any feed \ge 18% in crude fiber and \le 70% in total digestible nutrients (TDN), on an airdried basis and are 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 seed coat, 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 in the pre-dough stage of grain formation.

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

Sprouted Fodder: Cereal grains, particularly barley or wheat, sprouted and grown in a controlled environment and harvested as livestock feed.

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 semidormancy, 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. (6)

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 – AGA Grassfed Supplement & Feedstuffs Guidelines

<u>Note:</u> AGA Supplement Guidelines apply to AGA Grassfed market animals and do not apply to breeding animals unless breeding animals will be marketed through the AGA Grassfed Ruminant program, see §3.4. Calves at side are considered incidental but <u>MAY NOT</u> be exposed to banned products or prohibited feeds and ingredients in Appendix B & C, see §3.4.2.

Feeding of approved AGA supplements must fall within the 1% lifetime total intake standard, 3.3.2, as well and comply with 3.3.1, feeding to ensure animal's well-being during periods of low forage quality and inclement weather.

Lifetime 1% Intake Guidelines:

These guidelines are provided as an estimate of total intake for an average AGA grassfed steer or heifer.

Year 1 total intake of 50 lbs. on a dry matter basis

Year 2 total intake of 80 lbs. on a dry matter basis plus year 1.

Year 3 to lifetime total intake of 120 lbs. on a dry matter basis plus subsequent years.

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 rational 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 used as a binder or ingredient in pellets or cubes.

Molasses 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 wellbeing 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 list approved Forage Products, Roughage Products or Plant Protein Products.
- 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 \leq 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 meat 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.

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 Supplier Document

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 Trans	sferred:		
As a supplier of animals to an AGA prod			

led to the above AGA producer have been raised in accordance to the AGA Grassfed Standards. I have read and understand the AGA Grassfed Standards and these animals listed below comply with the standards.

Signature: _____ Date: _____

AGA Grassfed Dairy Supplier Affidavit

Livestock Species _____

No._____

Page