Regenerative Organic Certified™

Framework for Regenerative Organic Certification

Includes guidelines for:

- *Soil Health and Land Management*
- *Animal Welfare*
- *Farmer and Worker Fairness*

May 2018

I. Introduction

As agricultural practices continue to evolve, it is imperative that approaches to land management and associated processes are focused on contributing to the health of ecosystems, including human communities. Regenerative Organic Certification builds upon and furthers the near 100-year legacy of organic movement visionaries like J. I. Rodale, Dr. Rudolf Steiner, Sir Albert Howard, and the generations of diverse holistic producers that they channeled for inspiration and direction.

Regenerative Organic Certification includes guidelines for farming and ranching operations, transportation, slaughter, and certain processing facilities that produce food and fiber. Using the United States Department of Agriculture's National Organic Program (USDA Organic) certified organic standard (or its international equivalency[1] as formally determined by NOP pursuant to a trade arrangement entered into with NOP) as a baseline requirement (i.e. to achieve Regenerative Organic Certification, an entity must also hold USDA organic certification or an equivalent formally recognized by NOP), Regenerative Organic Certification adds criteria and builds off these and other standards in the areas of soil health and land management, animal welfare, and farmer and worker fairness. The goal of Regenerative Organic Certification is to promote holistic agriculture practices in an all-encompassing certification that:

- Increases soil organic matter over time and sequesters carbon below and above ground, which could be a tool to mitigate climate change;
- Improves animal welfare;
- Provides economic stability and fairness for farmers, ranchers, and workers; and

Regenerative Organic Certification consists of three specific modules: Soil Health and Land Management, Animal Welfare, and Farmer and Worker Fairness.

Regenerative Organic Certification is a living document and thus, will be continuously reviewed and revised by a committee of experts as new best practices emerge. At the same time, Regenerative Organic Certification will always be tied, at a minimum, to all requirements, policies, interpretations and determinations of NOP and authorized third-party certifiers operating on NOP's behalf. Any ambiguity or issue that arises as to application of the Regenerative Organic Certification program shall always be resolved in favor of consistency with NOP requirements when the issue falls within the purview of NOP.

Leveraging and Advancing Domestic and International Organic Standards

Regenerative Organic Certification does not aim to compete with or negate current organic standards, but instead serves as a mechanism to support these standards. For example, Regenerative Organic Certification includes as a minimum requirement that a qualifying product must be certified organic consistent with the NOP program requirements. Regenerative Organic Certification builds upon the standards set forth by USDA Organic and similar programs internationally, particularly in the areas of animal welfare and farmer and worker fairness, with an additional emphasis on the regenerative organic practices that are aimed at increasing soil health and sequestering carbon in the process.

[1] Criteria for international equivalent includes only those with which the USDA currently has a trade agreement.

II. Scope & Structure

Scope

Regenerative Organic Certification covers requirements for farming and ranching operations, transportation, slaughter, and certain processing facilities for food and fiber in small, medium, and large farms both domestic (USA) and international. Regenerative Organic Certification seeks to create change across a wide variety of farms and ranches in order to scale best practices to the widest audience possible.

The USDA provides national standards for organically-produced agricultural products, which assures consumers that products with the USDA Organic seal meet consistent, uniform standards. In addition to requiring adherence with NOP's organic program requirements, Regenerative Organic Certification also looks to international standards as the basis for Regenerative Organic Certification, with additional requirements included for Soil Health and Land Management, Animal Welfare, and Farmer and Worker Fairness.

As program manager of Regenerative Organic Certification, NSF will assist in building an oversight committee, creating a protocol and compliance system, certifying auditors, conducting ongoing monitoring and reporting, and acting as a registrar and system manager. The NSF administration will at all times take account of a participating entity's status under the NOP program. For example, a producer that loses its NOP certification would not be eligible to participate in the Regenerative Organic Certification program because NOP compliance is a prerequisite requirement for eligibility for Regenerative Organic Certification.

Structure

There are three levels of Regenerative Organic Certification: Bronze, Silver, and Gold, with the Gold designation representing the highest achievable level and the Bronze level representing the beginning level. This tiered approach enables producers to adjust and adapt their practices over time, and allows for continuous improvement.

Levels of Regenerative Organic Certification at the Producer level:

- **Bronze Level:** Can be claimed publicly; however, no product labeling is permitted. Annual recertification is required. After three years of Bronze certification, an operation must advance to Silver or Gold if it wishes to make continued public claims. To claim Regenerative Organic Certification at the Bronze level, between 0% and 50% of fiber-or-food-producing land within an operation must be certified. Claims about organic and regenerative organic can only be made about products specifically grown on land that is already certified organic.
- **Silver Level:** Product labeling is permitted. Annual recertification is required. To claim Regenerative Organic Certification at the Silver level, at least 50% of fiber-or-food-producing land within an operation must be certified at initial certification and must reach at least 75% by year 5. Claims about organic and regenerative organic can only be made about products produced from land that is already certified organic. Any organic and regenerative organic labeling must also abide by USDA organic labeling regulations.
- **Gold Level:** Product labeling is permitted. Annual recertification is required. To claim Regenerative Organic Certification at the Gold level, 100% of fiber-or-food-producing land of an operation must be certified. Any organic and regenerative organic labeling must also abide by USDA organic labeling regulations.

Labelling guidelines for manufacturing and final products is described in detail in Section III below.

**Note: Operations will not be eligible for Regenerative Organic Certification at any level until they achieve USDA Organic certification. Engagement in transitional programs is encouraged, but not required for Regenerative Organic Certification.*

The Soil Health and Land Management, Animal Welfare, and Farmer and Worker Fairness modules contain "Guidelines" for each level of certification, which provide guidance that operations should meet, depending on the level of certification sought. Guidelines include practices that are:

- **Required Practices (R):** Practices that operations must meet for an operation to be eligible for Regenerative Organic Certification at the desired level. Required Practices (R) include areas of zero tolerance, where failure to meet these practices may represent a disregard for laws and/or basic human and animal rights. Failure to meet Required Practices (R) must be communicated by the auditor to the Regenerative Organic Certification oversight committee within 24 hours. Operations that fail to meet any Required Practices (R) may not proceed with certification and instead must reapply following a period of no less than six months.
- **Optional Practices (O)**: Practices that are encouraged for all, but not required, at a particular level. Optional Practices (O) shift to Required Practices (R) as a producer advances from Bronze to Silver to Gold levels.
- **Critical Tolerances (CT):** Practices that require action on the part of producers and must be reported immediately and remediated within 30 days. If the Critical Tolerance (CT) is not resolved within 30 days, a producer cannot claim Regenerative Organic Certification.

To achieve the desired level of Regenerative Organic Certification, an operation must meet 100% of the Required Practices (R) for that level. Remember, participation at any level of Regenerative Organic Certification requires that the entity is properly certified as organic by an NOP-approved certifier and complies with all NOP requirements.

The Path to Regenerative Organic Certification

To achieve any level of Regenerative Organic Certification requires USDA Organic (or equivalent) certification, as well as demonstration of additional practices that go beyond USDA organic standards, particularly in the areas of soil health and land management, animal welfare, and farmer and worker fairness. The path for chemical agriculture producers to achieve Regenerative Organic Certification is:

Chemical → Transitional [2] → Certified Organic → ROC Bronze → ROC Silver → ROC Gold

Chemical and transitional producers (producers working towards organic certification) can start employing regenerative practices well before they are certified organic. The following roadmap highlights the earliest point that different types of producers can receive Regenerative Organic Certification. The roadmap assumes that producers have met the requirements under the Animal Welfare and Farmer and Worker Fairness modules.

Furthermore, regenerative practices and definitions are provided within this section to help chemical and transitional producers familiarize themselves with regenerative principles that they will adopt as they transition.

Current Status	Year 1	Year 2	Year 3	Year 4
Chemical	▪ Begin transition to certified organic ▪ Discontinue use of prohibited substances ▪ Create a plan & begin to incorporate regenerative organic practices, incl. soil health, animal welfare, & farmer and worker fairness	▪ Continue to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices ▪ Eligible for Regenerative Organic Certification if certified organic and silver and gold labels* 	▪ Continue to manage land using regenerative organic practices

[2] *Engagement in certified transitional programs is encouraged, but not required for Regenerative Organic Certification.*

Transitional	▪ Continue to manage land using organic practices ▪ Create a plan & begin to incorporate regenerative organic practices, incl. soil health, animal welfare, & farmer and worker fairness ▪ Start to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices ▪ Eligible for Regenerative Organic Certification if organic certification is held and silver and gold labels	▪ Continue to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices
Organic	▪ Begin to incorporate regenerative practices in addition to organic, incl. soil health, animal welfare, & farmer & worker fairness ▪ Eligible for Regenerative Organic Certification and silver and gold labels	▪ Continue to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices
Regenerative Organic – Bronze & Silver	▪ Continue to manage land using regenerative organic practices ▪ Eligible for Regenerative Organic Certification and silver and gold labels	▪ Continue to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices	▪ Continue to manage land using regenerative organic practices

No individual module of the Regenerative Organic Certification designation may be communicated until minimum compliance with all modules are met. For example, if a producer meets the requirements for Soil Health and Land Management but not Animal Welfare (if applicable) or Farmer and Worker Fairness, they are not eligible to claim Regenerative Organic Certification. Producers can communicate they have engaged in the process, but cannot make full claims about meeting Regenerative Organic Certification.

Transitional operations should demonstrate continued progress towards organic certification. Operations at the transitional level are not permitted to use the Regenerative Organic Certification product label. Operations certified at the Bronze level may not use the Regenerative Organic Certification product label, and must progress to Silver or Gold levels within three years. Operations certified at the Silver or Gold level may use the appropriate Regenerative Organic Certification product label. Silver level operations are not required to advance to Gold, as the Gold level is reserved for pioneering producers that serve as models for others to strive towards.

Key Terms and Practice Areas

Regenerative practices are described in depth in each module: Soil Health and Land Management, Animal Welfare, and Farmer and Worker Fairness. The below bullets include important practices and definitions that are referred to and built upon in the guidelines for each module. For chemical and transitional producers, familiarity with these practices and definitions can serve as the first step in incorporating regenerative practices into their operation prior to officially applying for Regenerative Organic Certification.

<u>Soil Health and Land Management:</u>

- **Agroforestry:** The practice of incorporating cultivation and conservation of trees as part of an agricultural operation.

- **Biodiversity:** Biodiversity, or biological diversity, is the diversity of life existing at three levels: genetic, species, and ecosystem. Biodiversity includes variety in all forms of life, from bacteria and fungi to grasses, ferns, trees, insects, and mammals. It encompasses the diversity found at all levels of organization, from genetic differences between individuals and populations (groups of related individuals) to the types of natural communities (groups of interacting species) found in a particular area. Biodiversity also includes the full range of natural processes upon which life depends, such as nutrient cycling, carbon and nitrogen fixation, predation, symbiosis and natural succession.

- **Carbon Sequestration:** The process by which atmospheric carbon dioxide is taken up by trees, grasses, and other plants through photosynthesis and stored as carbon in biomass (trunks, branches, foliage, and roots) and soils. For agricultural operations, increased carbon sequestration may be achieved through, for example, no-till or low-till practices, agroforestry, reforestation, or the use of biomass-containing amendments.

- **Compost:** Compost, when properly managed, results in a high quality soil amendment. Compost may increase the water holding capacity of the soil, helping farmers to produce a good crop even in years of low rain. Compost improves soil structure and stability, recycles nutrients, stabilizes volatile nitrogen, converts wastes into resources and suppresses soil-borne diseases. The composting process destroys weed seeds and pathogenic microorganisms, while beneficial microorganisms grow and multiply in great numbers. Synthetic amendments can provide soluble nutrients for plant growth, but do not build the soil's long-term biological reserves as well as compost does, and therefore are not permitted under Regenerative Organic Certification.

- **Cover Cropping:** A cover crop is a crop planted primarily to reduce soil erosion and prevent desiccation of soil microbial communities, resulting from soil left exposed. Cover crops may suppress weeds, recycle nutrients back to the soil, increase soil organic matter, sequester carbon in the soil, and reduce erosion.

- **Crop Rotation:** Crop rotation is a systematic approach where producers rotate crop varieties and locations from one year to the next. The goals of crop rotation are to help manage organic soil fertility and also to help avoid or reduce problems with soil-borne diseases and some soil-dwelling insects, such as corn rootworms.

- **Invasive Species:** Invasive plants and animals that are non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms (e.g. microbes). Human actions are the primary means of invasive species introductions.

- **Pasture**: Pasture is a land use type having vegetation cover comprised primarily of native or introduced forage species that is used for livestock grazing.

- **Perennial Crops:** Crops which are alive year-round and are harvested multiple times before dying. Apples and alfalfa are examples of perennials that are already commercially grown and harvested. Perennial plants develop much greater root mass than annual crops and protect the soil year-round, leaving fields less vulnerable to wind, water, and soil erosion.

- **Riparian Areas:** Plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent moving and standing water bodies (e.g. rivers, streams, lakes, or drainage ways). Riparian areas have one or both of the following characteristics: 1) distinctly different vegetative species than adjacent areas, and 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are usually transitional between wetland and upland.

- **Rotational Grazing:** Rotational grazing is a livestock production system where livestock graze in one portion (a paddock) of a pasture that has been divided into several paddocks. Livestock are systematically moved from paddock to paddock based on the stage of growth of the forages and on the objectives of the grazing system. While one paddock is being grazed, the rest of the pasture rests. This rest and recovery time maintains forage plants and builds soil organic matter.

- **Silvopasture:** The practice of combining forestry and grazing of animals in a mutually beneficial way. A properly managed silvopasture operation enhances soil protection and increases long-term income

due to the simultaneous production of trees and grazing animals.

- **Soil Health:** Improving soil health is one of the key targets of Regenerative Organic Certification. Soil health is measured by various factors, from the amount of nutrients in the soil (i.e. nitrogen), soil organic matter, humic acid (the component of soil that sequesters carbon over the long term), and biological life (among other metrics described in detail below).

- **Tillage:** Preparation of soil by mechanical agitation of various types, such as digging, stirring, and overturning. Regenerative Organic Certification aims to minimize tilling. Biological principles and mechanical cover crops may reduce or eliminate the need for tilling.

Animal Welfare:

- **Body Condition Score:** A system of measuring how thin or fat an animal is by reference to a standardized scale.

- **Carrying Capacity:** The average number of animals that can be rotationally grazed on a given area of pasture for a year without harming it. It is a measure of a pasture's ability to produce enough forage to meet the requirements of grazing animals.

- **Concentrated Animal Feeding Operations (CAFO):** Concentrated Animal Feeding Operations (CAFOs), as defined by the U.S. Environmental Protection Agency (EPA), are agricultural operations where animals are kept and raised in confined situations. A CAFO is a lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. The EPA provides specific thresholds by animal sector for small, medium, and large CAFOs. For example, a large CAFO for cattle is defined as 1,000 or more "animal units" confined for over 45 days a year.

- **Five Freedoms:** The Animal Welfare module leverages the five freedoms for animal welfare, which include:

    1. Freedom from hunger or thirst by ready access to fresh water and a diet to maintain full health and vigor.
    2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area.
    3. Freedom from pain, injury, and disease by prevention or rapid diagnosis and treatment.
    4. Freedom to express normal behaviors by providing sufficient space, proper facilities and company of the animal's own kind.
    5. Freedom from fear and distress by ensuring conditions and treatment that avoid mental suffering.

- **Handling:** The handling of animals covers the general treatment of animals during the various tasks performed and requirements of an operation. To minimize stress, pain, and suffering to an animal, Regenerative Organic Certification prohibits certain practices, such as prodding (jabbing of animal with instrument), hot / cold branding, wattling (cutting chunks out of an animal's hide to hang under the animal's neck), and disbudding (removal of horn buds).

- **Mobile Harvesting Unit:** A mobile harvest unit, or mobile slaughterhouse, enables livestock and poultry farmers to slaughter their animals humanely on-site. This decreases the exposure of animals to stressful and inhumane treatment at large scale slaughter facilities.

- **Monogastrics:** Monogastric animals have a simple single-chambered stomach and include dogs, pigs, horses, and rabbits. Their ability to extract energy from cellulose digestion is less efficient than in ruminants, and therefore are permitted to feed on grains.

- **Non-Ambulatory Animals:** Animals that cannot rise from a recumbent position or that cannot walk, including, but not limited to, those with broken appendages, severed tendons or ligaments, nerve paralysis, fractured vertebral column, or metabolic conditions.

- **Ruminants:** Ruminant species include cud-chewing animals such as cows, goats, bison, and sheep. Ruminants are designed to eat fibrous grasses, plants, and shrubs. A high-grain diet may cause physical problems for ruminants. Additionally, when ruminants are switched from pasture to grain, they can become afflicted with numerous disorders, including a common but painful condition called "subacute acidosis."

Farmer and Worker Fairness

- **Capacity Building:** The process of developing and strengthening the skills, instincts, abilities, processes, and resources to improve the social and economic position of farmers and workers.
- **Democratic Organizations (International):** The ability for small-scale farmers to be democratically organized in order to be able to compete globally.
- **Equal Opportunity:** The policy of treating job applicants or employees equally without regard to the person's race, color, gender, pregnancy, sexual orientation, disability, marital status, age, religion, political opinion, national extraction, social origin, or other personal characteristics.
- **Fair Payments:** Payment sufficient to cover cost of production including living wages for any workers and equivalent income to farmers, plus reinvestment in farm.
- **Freedom of Association and Collective Bargaining:** The method whereby representatives of workers (unions) and producers (farmers/ranchers) negotiate the conditions of employment, often resulting in a written contract setting forth the wages, hours, and other conditions to be observed for a stipulated period. Collective bargaining should be conducted in good faith.
- **Living Wage:** The remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events.
- **Routine Workplace Audits:** Routine third-party audits should assess that producers minimize exposure to disease, ensure access to safe inputs, provide clean facilities, document identification procedures, record use of treatment products, and properly train workers on the operation's protocols.
- **Trafficked Labor:** Any work performed by a person who has been recruited, transported, harbored or obtained by means of the use of threat, force, coercion or deception for the purpose of exploitation.

Regenerative Organic Alliance and Stakeholder Review Process

The Regenerative Organic Certification program is overseen by the Regenerative Organic Alliance, a non-profit established to continuously review and update the certification's guidelines. The Regenerative Organic Alliance is made up of experts in farming, ranching, soil health, animal welfare, and farmer & worker fairness, and will regularly reevaluate certification guidelines and update the certification, as necessary. Organizations that are represented on the board of the Regenerative Organic Alliance include:

- Compassion in World Farming
- Demeter
- Dr. Bronner's
- Fair World Project
- Grain Place Foods
- Patagonia
- Rodale Institute (Chair)
- Textile Exchange

- White Oak Pastures

The Regenerative Organic Alliance board will conduct stakeholder review processes covering Required Practices (R), Optional Practices (O), Critical Tolerances (CT), implementation roadmap for producers, auditor qualifications, and onsite assessment requirements. The Regenerative Organic Alliance board will also perform a benchmarking exercise to determine which existing standards to leverage as part of the Regenerative Organic Certification equivalency process.

Additionally, review subcommittees for the Soil Health and Land Management, Animal Welfare, and Farmer and Worker Fairness modules are comprised of the following stakeholders:

- Farmers, ranchers, and workers
- Auditors
- Social and animal welfare non-governmental organizations
- Veterinarians with farm animal expertise
- Agricultural economists
- Environmentalists and environmental non-governmental organizations
- Certification and standard experts and qualified trade organizations
- Retailers, food companies, and brands that support regenerative practices

Regenerative Organic Certification will be continually reviewed and revised, as necessary.

III. Demonstration of Compliance

All levels of Regenerative Organic Certification require producers to be in compliance with local, provincial/state and national laws for animal welfare, labor rights, and land management. In addition, USDA organic requirements are a baseline for Regenerative Organic Certification, therefore, producers must comply with the requirements for geographically-appropriate organic certification requirements. The highest requirement, whether local law or Regenerative Organic Certification, applies for each of the sections in the standard.

Regenerative Organic Certification compliance is demonstrated by successfully receiving certification for existing standards noted within each module, as well as by undergoing third-party audits for additional elements required under Regenerative Organic Certification. In order to avoid redundant work and to conduct efficient audits, third-party auditors will only audit for additional requirements not found in existing certifications.

Each production or handling operation or specified portion of a production or handling operation that produces or handles crops, livestock, livestock products, or other agricultural products that are intended to be sold, labeled, or represented as organic and regenerative organic must meet all Regenerative Organic Certification requirements, as well as USDA organic requirements. No provision of this Framework or any element of the Regenerative Organic Certification program shall be read or applied in a manner that is inconsistent with NOP program requirements or policies.

Certification Label

The following is the official Regenerative Organic Certification logo. When used for labeling purposes, the entire logo with the text “Regenerative Organic Certified” should be used. Note that because all products that are qualified to make Regenerative Organic Certification claims must also have achieved organic certification under USDA organic regulations, any use of the USDA organic label must also abide by USDA organic labeling requirements.

Regenerative Organic Certified™

There are various categories of labeling based on the use of Regenerative Organic Certified ingredients in a product:

1. “100% Regenerative Organic Certified” means that the product was produced and processed using only regenerative organic methods and regenerative organic ingredients (excluding water and salt but including processing aids). These products cannot contain any banned ingredients from the National List of Allowed and Prohibited Substances. The Regenerative Organic Certified logo is permitted on the product. Most products in this category are single ingredient products.

2. “Regenerative Organic Certified” means that the product was produced and certified as USDA organic and contains a minimum of 95% regenerative organic ingredients. The Regenerative Organic Certified logo is permitted on the product. The non-organic ingredients in these products must be non-GMO, must not be irradiated, and must not have been fertilized with sewage sludge, as defined by the National Organic Standards Board.

3. “Made with regenerative organic ingredients” products contain between 70% and 95% regenerative organic ingredients. They can use the wording “made with regenerative organic ---“ and list up to three ingredients or food groups on the front panel. These products cannot include the Regenerative Organic Certified logo anywhere on the package. The non-organic ingredients in these products must be non-GMO, must not be irradiated, and must not have been fertilized with sewage sludge, as

defined by the National Organic Standards Board.

4. Products with fewer than 70% regenerative organic ingredients or less can use the words "regenerative organic" to specify regenerative organic ingredients in the ingredient panel. These products are not permitted to have the Regenerative Organic Certified logo or make any front panel claims about regenerative organic certification.

Any labeling or claims made must also meet requirements laid out in Subpart D of USDA organic regulations. The calculation of percentage of organic and regenerative organic ingredients should be the same as the calculation laid out in §205.302 of the USDA organic regulations.

Audit Protocols & Auditor Requirements

Regenerative Organic Certification will leverage the audit protocols and auditor requirements of standards recognized under Regenerative Organic Certification. Where those requirements are unsatisfactory and/or to certify the additional requirements described under Regenerative Organic Certification, auditing steps should comply with the guidance outlined in the Appendix.

The Regenerative Organic Alliance and NSF International will work with USDA-accredited certifiers, so that they are trained and able to grant Regenerative Organic Certification. In addition to those organizations accredited and overseen by the Agricultural Marketing Service National Organic Program, NSF International will accredit certifying bodies for Regenerative Organic Certification, who will verify and document all Regenerative Organic Certification claims. NSF International will also oversee the misuse or misrepresentation of Regenerative Organic Certification claims, removing certification from those who do not comply with certification requirements.

NSF International will oversee the enforcement mechanism to address any misuse of the Regenerative Organic Certification label or incorrect claims regarding the Regenerative Organic Certification program. NSF International will oversee and conduct regular audits of certification bodies, investigate complaints, issue warning notices, and suspend or revoke accreditation of certification bodies. NSF International will also create a database of accredited certification bodies, Regenerative Organic certified entities, fraudulent certification claims, and entities who have had their certification suspended or revoked.

Regenerative Organic Certification certifying bodies will inspect operations on an annual basis, investigate violations, issue non-compliance notices, quickly correct any issues to bring an operation into compliance, and suspend or revoke certifications, when necessary.

Cost Structure of Inspection, Certification, and Labeling

[Through the pilot program, more information will be available regarding the cost structure, including cost of inspection, cost of labeling, and how certification can be bundled with existing standards or certification bodies, etc.]

IV. Organic Baseline & Equivalents

To receive Regenerative Organic Certification, all requirements listed in this document must be met and all products sold, labeled, or represented as regenerative organic must also comply with USDA organic regulations at 7 CFR Part 205, National Organic Program.

Additionally, all international organic standards from nations that have bilateral arrangements with the United States meet Regenerative Organic Certification equivalency requirements. In addition to the European Union, this includes Japan, Canada, Switzerland, Taiwan, and South Korea. The United States also recognizes India and New Zealand organic standards. Future equivalency arrangements will also meet the organic equivalency baseline requirement.

V. Soil Health and Land Management

The Soil Health and Land Management module of Regenerative Organic Certification seeks to facilitate the adoption of agricultural practices that build, rather than degrade, soils, by increasing soil organic matter, biodiversity, and fertility.

1. Standards for Soil Health and Land Management

1. OPERATION MANAGEMENT	Practice Description	Bronze	Silver	Gold
1.1 Existing Certifications	Operation has proof of existing USDA Organic certification or recognized equivalent.	**R**	**R**	**R**
1.2 Regenerative Practices	Operations incorporate the following practices to improve overall ecosystem health and productivity of operations: - Anaerobic Digester - Buffer Strips or Buffer Zones (incl. Contour Buffer Strips) - Compost Application - Cover Crops - Crop Rotations - Forage & Biomass Planting - Forest Stand Improvement and Forest Slash Treatment - Grassed Waterways - Herbaceous Wind Barriers & Field Borders - Integrated Crops & Animals - Moisture-Sensing Technologies for Irrigation - Mulching / Compost Application - Perennial Planting - Pollinator Habitats, Insectary Strips, or Wildlife Habitat - Reclamation of Mined Land or Landslide Treatment - Reduction of Off-Farm Inputs & Recycling of On-Farm Biomass - Riparian Restoration - Silvopasture Establishment - Tree / Shrub Establishment - Vegetative Barriers - Water Conservation and/or Wetland Restoration - Windbreak & Shelter Belt Establishment Operators document these interventions with photos, preferably linked to GPS coordinates. Requirements by level: - Bronze: Two (2) of the above practices used in operation. - Silver: Three (3) of the above practices used in operation. - Gold: Four (4) or more of the above practices used in operation.	**R**	**R**	**R**
1.3 Natural Waterways	Operations conserve and restore natural bodies of water, wetland, riparian areas, and associated habitats. Documentation exists for alterations made by previous or adjacent landowners.	**R**	**R**	**R**
1.4 Deforestation	Operations do not clear primary or old growth secondary forests or convert high conservation value ecosystems.	**R**	**R**	**R**
1.5 Extractive Practices	Fracking, mining, and other extractive practices are not conducted on land within the operation. Exceptions exist in instances where the land owner does not own the mineral rights and therefore has no legal basis to prohibit a mineral owner to extract on their property; however, land owner should not aid or get compensated for extraction of any kind taking place on the property.	**R**	**R**	**R**
2. SOIL & CROP MANAGEMENT	**Practice Description**	**Bronze**	**Silver**	**Gold**

2.1 Cover Crops	Producers incorporate the use of cover crops on an annual basis and/or perennial crops across all producing acreage. Land maintains adequate cover year-round. Roots remain in the ground (if possible), otherwise, maintenance of dead/rolled cover crop and/or leaves is required. - Bronze/Silver: Incorporates perennials and/or one or more cover crops on an annual basis - Gold: Incorporates perennials and/or one or more cover crops on an annual basis, including one nitrogen-fixing cover crop (i.e. legumes). Silvopasture or food forest systems may not require the use of cover crops. CT: No cover crops or perennial crops used. Documentation is required when operations are unable to meet the above guidelines due to unforeseen factors, such as weather.	**O**	**R**	**R**
2.2 Crop Rotations	Operations use crop rotations. For both annual and perennial systems, crop rotations are implemented to provide for pest management. - Bronze / Silver: Three-crop rotation or use of perennial system - Gold: Seven-crop rotation or use of perennial system	**O**	**R**	**R**
2.3 Tillage	Tillage should be infrequent and should only occur when necessary. Tillage should never be deeper than 10 inches, except during preparation/planting of certain perennials (i.e. orchards, nut trees, grape vineyards, etc.). No till practices have been shown to increase soil organic matter and sequester carbon. Inclusion of cover crops as outlined above will help reduce the need for tillage. - Gold: No-till practices must be incorporated, with no more than one tillage operation (no deeper than 10 inches) every three years for annual crops.	**R**	**R**	**R**
2.4 Rotational Grazing	Animals, excluding bison and pigs, are used in high concentrations for brief periods of time (i.e. mob grazing). Pastures divided into paddocks, with animals moved regularly. The number of animals per acre should follow Appendix F: Calculation of Stocking Rates outlined in Demeter's Biodynamic Farm Standard. Sensitive areas (e.g. habitat for declining & rare species, rare ecosystems, and natural wetlands & riparian areas) are not grazed in times of the year when it could have a negative impact on the ecosystem or on local wildlife.	**O**	**R**	**R**
2.5 Soilless Practices	Aquaponics, hydroponics, and other soilless practices are not eligible for Regenerative Organic Certification. Exceptions are made for plants intended to be grown in water, such as water cress and certain ornamentals. Container growing where crops are never integrated into a field for the majority of a crop's life is not eligible for Regenerative Organic Certification.	**R**	**R**	**R**
3. COMPOST, MANURE & FERTILIZERS	**Practice Description**	**Bronze**	**Silver**	**Gold**

3.1 General	The operation aims for self-sufficiency in its manures and fertilizers. Importation of certain fertilizers (listed in Appendix B of the Demeter Biodynamic Farm Standard) may only be used as demand dictates and must be approved under USDA Organic standards. All manure and fertilizer use should be included in the Regenerative Organic System Plan. Manure can be directly-deposited by rotationally grazing animals. The use of liquid manure is not permitted.	**R**	**R**	**R**
3.2 Synthetic Fertilizer	Operation does not use any synthetic fertilizers or other substance not permitted under USDA Organic or equivalent standards.	**R**	**R**	**R**
3.3 Imported Nitrogen and Phosphorous	In general, an operation does not import more than 36 lbs. N/acre and 31 lbs. P/acre over the crop rotation/cultivated area annually. In dryland areas during seasons with low rainfall, additional imported N & P may be allowed, but should be documented.	**R**	**R**	**R**
4. BIODIVERSITY	**Practice Description**	**Bronze**	**Silver**	**Gold**
4.1 Invasive Species	Farmers monitor and manage the infestation of unwanted exotic or invasive plants and animals, including insects, that may spread to natural areas on and off the farm. For example, managed grazing is an acceptable management practice for exotic weed control.	**R**	**R**	**R**
4.2 Endangered Plants and Animals	If not already prohibited by local or national laws, operation does not allow hunting, fishing, or gathering of rare or endangered animal species on the property, nor do they cause harm to the species' habitat. Wildcrafting or other types of harvesting from nature are permitted provided it does not result in overharvesting or other negative impacts to the natural ecosystem.	**R**	**R**	**R**
5. FACILITIES	**Practice Description**	**Bronze**	**Silver**	**Gold**
5.1 Wastewater	Operation does not directly discharge untreated wastewater into natural waterways or soil. Operation does not divert wastewater to bypass treatment. Industrial wastewater goes through Primary and Secondary treatment (onsite or offsite). CT: Leaking wastewater pipes; wastewater is not prevented from overflowing outside the proper effluent streams in the case of rain. CT: Lack of description and schematic diagram of onsite wastewater treatment system. CT: For a facility that produces more than 50 cubic meters (m3) per day of industrial wastewater and has onsite wastewater treatment, there are no measurements in the past 12 months of wastewater quality (pH, COD, BOD, and TSS) after the onsite treatment.	**R**	**R**	**R**
5.2 Waste	Operation does not illegally dump waste. Documentation exists for disposal of hazardous waste. Operation does not bury or openly burn any waste on-site. CT: Non-disclosure of any and all onsite sources of air emissions. CT: Failure to identify, isolate, and properly handle and dispose of hazardous waste. CT: No Restricted Substances List and/or lack of a program to ensure compliance with it.	**R**	**R**	**R**
6. USE OF PROHIBITED SUBSTANCES	**Practice Description**	**Bronze**	**Silver**	**Gold**
6.1 Synthetic Chemicals	Operation does not use any substances not permitted under USDA Organic or equivalent standard for pest control, weed control, fertilizer, or other application. Pesticides that are highly toxic to pollinators, as defined by Xerces Society's "Toxicity of Common Organic-Approved Pesticides to Bees" are not allowed.	**R**	**R**	**R**
6.2 Genetically Modified Inputs & Cloning	Operation does not use any genetically modified additives or processing aids, such as fertilizers, pesticides, herbicides, seeds, or crops derived from genetically modified sources, including emerging technologies that edit or regulate genes such as RNAi,	**R**	**R**	**R**

	CRISPR, and TALEN. Cloned animals are not eligible for Regenerative Organic Certification.			
7. MEASUREMENT	**Practice Description**	**Bronze**	**Silver**	**Gold**
7.1 Soil Health Lab Test *See Appendix for detailed instructions*	Producers conduct Regenerative Organic Certification Soil Health Lab Test in accordance with procedures laid out by an accredited organization, such as a university, lab, or private organization with an expertise in analyzing soil health. For example, operations may use Cornell University's "Comprehensive Assessment of Soil Health: The Cornell Framework Manual." Tests are to be conducted at initial certification inquiry, and then every 3 years thereafter, except where noted. For locations where it is prohibited to import or export soil samples, other lab tests may be used with supporting documentation, provided the test results include all of the required metrics. Producers must allow access to land for deep core soil samples, which are outside the scope of the Soil Health Lab Test, once every six years. The same lab should be used for all testing to ensure consistency. See Appendix for detailed instructions.	**R**	**R**	**R**
7.2 Soil Health In-Field Test *See Appendix for detailed instructions*	Producers conduct soil health in-field tests and follow Regenerative Organic Certification Soil Health In-Field Test instructions in Appendix.	**O**	**O**	**O**
7.3 Computer Models	Operators utilize computer-based modeling tools (e.g. COMET-Farm Voluntary Carbon Reporting Tool, Cool Farm Tool, etc.) to determine annual GHG emissions and sequestrations. Operators document practices in the computer-based models, review annually with auditor, and submit documentation to certifying body.	**O**	**O**	**O**

2. Leveraging Existing Standards

As described previously, producers can demonstrate compliance by leveraging existing certifications and having third-party verification of any required Regenerative Organic Certification standards not met by the existing certification.

Producers wishing to fulfill the Soil Health and Land Management module of Regenerative Organic Certification may do so by meeting certain existing certifications, plus additional "bolt-on" requirements. Please refer to the separate equivalency analysis to see what guidelines are already met by existing certifications.

VI. Animal Welfare

The Animal Welfare module within Regenerative Organic Certification seeks to ensure humane practices in the raising and/or handling of animals that intend to be sold or marketed using Regenerative Organic Certification claims. For operations that do not involve any animals, this section is not applicable and will be considered met for the purposes of achieving Regenerative Organic Certification.

1. Standards for Animal Welfare

The below standards are intended to incorporate the five freedoms of animal welfare, along with any additional species-specific requirements. As stated in Section IV, to receive Regenerative Organic Certification, all requirements listed in this section must be met, and all products sold, labeled, or represented as regenerative organic must also comply with USDA organic regulations at 7 CFR Part 205, National Organic Program. Additionally, any livestock or livestock products with organic and regenerative organic claims must comply with the USDA organic regulations, and operations must comply with all federal humane handling, transportation, and slaughter requirements, as outlined by the USDA Food Safety and Inspection Service and the Humane Methods of Livestock Slaughter Act of 1978.

1. GENERAL	Practice Description	Bronze	Silver	Gold
1.1 Existing Certifications	Operation has proof of existing animal welfare certification, such as Animal Welfare Approved, Certified Humane, or Global Animal Partnership (Level 4 or higher).	**R**	**R**	**R**
1.2 General	Operations have researched all applicable laws regarding animal welfare (general and species specific) and are in compliance with all local, provincial/state, and national laws.	**R**	**R**	**R**
1.3 Applicability	Animal welfare requirements apply to animals on an operation depending on the following categorizations: - Bronze: Applicable to animals used for dairy, meat, or fiber production. - Silver: Applicable to animals used for dairy, meat, or fiber production. - Gold: Applicable to all animals on an operation, including those used for dairy, meat, or fiber production and farm operations (e.g. dogs used to control predators, horses used for herding, etc.)	**R**	**R**	**R**
1.4 Concentrated Animal Feeding Operation	Operation does not feed animals in a manner that meets the EPA's definition of a CAFO: "A farm in which animals are raised in confinement that has over 1,000 animal units confined for over 45 days a year."	**R**	**R**	**R**
2. NUTRITION & WATER	**Practice Description**	**Bronze**	**Silver**	**Gold**
2.1 General	Feed and water must be distributed in such a way that livestock can eat and drink without undue competition. Animals have access to sufficient feed quantity to satisfy hunger & promote satiety. If applicable, feed is stored to maintain freshness and hygiene, avoiding mildew, mold, or contamination.	**R**	**R**	**R**
2.2 Water	Animals have access to fresh and clean water for drinking. Water fowl should also have access to fresh or clean water for bathing. CT: Limited fresh water access.	**R**	**R**	**R**
2.3 Feed for Monogastrics	Monogastric feed comes from regenerative organic, organic, or on-farm sources. Requirements by level: - Bronze: 0%-50% from regenerative organic or on-farm sources; remainder organic - Silver: >50% from regenerative organic or on-farm sources; remainder organic - Gold: >75% from regenerative organic or on-farm sources; remainder organic	**R**	**R**	**R**

	Note: On-farm sources are derived from regenerative organic or organic certified land.			
2.4 Feed for Ruminants	Ruminant feed comes from grass/forage/baleage/hay ("grass-fed") or organic sources. Requirements by level: - Bronze: >50% grass-fed; remainder from organic sources - Silver: >75% grass-fed; remainder from organic sources - Gold: 100% grass-fed (including finishing) Supplementation for nutritional purposes using minerals, vitamins, and/or molasses is allowed. All feeding practices must abide by organic guidelines.	**R**	**R**	**R**
2.5 Forced Feeding	Operations do not force feed animals, unless it is for life-saving purposes.	**R**	**R**	**R**
2.6 Malnutrition	Farming practices promote proper nutrition, avoiding malnutrition.	**R**	**R**	**R**
3. ENVIRONMENT & SHELTER	**Practice Description**	**Bronze**	**Silver**	**Gold**
3.1 General	Environment considers an animal's welfare needs. Environment is designed to protect animals from physical and thermal discomfort, fear, distress, and allows them to perform natural behaviors conducive to good animal welfare. Additional species-specific requirements to be made below. For example: - Sheep for merino wool are able to roam freely in mountainous regions, which may be subject to extreme temperatures. - Chickens require (1) mobile coops that are moved to fresh grass regularly, at least once per week and (2) perches Selection of species and types of livestock made with regard to suitability for site-specific conditions and resistance to prevalent diseases and parasites.	**R**	**R**	**R**
3.2 Indoor Shelter	Animals are provided with shelter adequate for their physical and behavioral needs. Shelter for animals and birds may be provided by natural features such as shade, trees, or by buildings. Housing may also be used as shelter. In extreme weather there must be a means to feed and water animals in a sheltered environment.	**R**	**R**	**R**
3.3 Indoor Spaces for Avian Species	If an indoor space is used for housing avian species, the indoor space utilizes a mobile structure with solid or perforated flooring that is moved regularly during the grazing season. Birds must have access to the outdoors and permanent indoor confinement is not permitted.	**R**	**R**	**R**
3.4 Temporary Confinement	Operations do not use any type of temporary or permanent confinement that restricts mobility. This may include the use of cages, crates, or tie-stalls. Livestock should generally live, eat, and sleep outdoors on pasture, with shelters provided to avian species to roost and sleep in. An operation only provides temporary confinement for an animal under inclement weather or other situations that threaten the health and safety of an animal or to administer treatments for sick animals. Livestock may also be confined for a maximum of 2 hours per day in order to collect manure for compost or to perform farm functions, such as milking dairy cows. Livestock may also be confined during transport.	**R**	**R**	**R**
3.5 Light	Animals have exposure to natural light and are not exposed to artificial light for more than 16 hours. A minimum period of 8 hours of continuous darkness must be provided, unless located in geographies where there is less than 8 hours of darkness at night. Natural light must be sufficient indoors on sunny days, such that an inspector can read and write when all lights are turned off. In the case of hens, artificial light intensity is lowered	**R**	**R**	**R**

	gradually to encourage hens to move to perches or settle for the night.			
4. HANDLING & MANAGEMENT	**Practice Description**	**Bronze**	**Silver**	**Gold**
4.1 General	Producers promote compassionate care and handling of animals. Daily inspections of animals occur.	**R**	**R**	**R**
4.2 Animal Abuse, Cruelty, and Physical Modifications	Operations do not abuse animals or treat animals with cruelty. In particular, operations do not use the following methods: - Beak Trimming / De-Beaking - Caponization - Cattle Wattling - Clipping, Grinding, or Filing of Teeth (unless deemed best for the animal) - De-Clawing/ Toe Clipping - De-Horning - De-Snooding - De-Spurring - Disbudding - Dubbing - Ear Notching - Forced Molting - Hot / Cold Branding - Mulesing - Pinioning - Prodding - Tail Docking of Cattle - Tail Docking of Sheep shorter than Distal End of Caudal Fold - Tusk Removal See specific definitions of these practices in Appendix.	**R**	**R**	**R**
5. HEALTH	**Practice Description**	**Bronze**	**Silver**	**Gold**
5.1 General	Treatment for sick, injured, or diseased animals is undertaken at the first reasonable opportunity to alleviate any unnecessary pain or distress. Operation does not withhold medical treatment from a sick animal in order to preserve certification status. Treatment is also undertaken for non-ambulatory livestock, even if the treatment causes the livestock to lose its certified status or to be humanely euthanized. CT: Animals are not treated effectively or promptly for injuries or sickness, or euthanized if necessary, using humane euthanasia methods as described in Euthanasia Section.	**R**	**R**	**R**
5.2 Vaccines & Antibiotics	When recommended by a veterinarian or if homeopathic, herbal, and other non-antibiotic treatments are not available, antibiotics are used to treat sick or injured animals. Vaccines are used for prevention of disease to minimize future use of antibiotics. Growth hormones or non-therapeutic use of substances to induce heat are prohibited. In an emergency, a producer must use antibiotics if necessary to save the life of the animal or to prevent suffering and are based on the recommendation of a vet. Withholding treatment of antibiotics from animals to maintain their organic status is prohibited. If a producer uses antibiotics, they must do the following: - Record the event in their health records. - Notify their certifier of the situation. - Segregate the animal to prevent contamination of organic products. For example, a dairy cow must be marked to prevent the milk from going in the bulk tank. In addition, the milk may not be fed to calves.	**R**	**R**	**R**

	- Sell the animal to a non-organic market or remove from organic management and use for other purposes. - Document the sale of the animal. For the offspring of the treated animal to qualify as organic, the treatment must not occur during the last third of gestation. In addition, the offspring cannot nurse on an animal that has been treated. A producer of livestock may not sell, label, or represent as organic or regenerative organic any animal or edible product derived from any animal treated with antibiotics, any substance that contains a synthetic substance not allowed under USDA organic requirements section §205.603, or any substance that contains a non-synthetic substance prohibited in USDA organic requirements section §205.604.			
6. SLAUGHTER/ KILLING	**Practice Description**	**Bronze**	**Silver**	**Gold**
6.1 General	All slaughter/killing systems need to be designed and managed to ensure animals are not caused unnecessary or intentional distress or discomfort before slaughter.	**R**	**R**	**R**
6.2 Pre-slaughter	Operations work to minimize the pre-slaughter handling of animals. This includes but is not limited to handling animals without abuse, ensuring animals have good traction on flooring and do not slip or fall during unloading and movement around the plant, and have their view of the slaughter floor obscured as to avoid any unnecessary stress or discomfort.	**O**	**R**	**R**
6.3 Slaughter Methods	Slaughter is performed using stunning methods that result in immediate insensitivity, such as a shot to brain or penetrative bolt stunning followed by bleeding. Pre-shackle, multi-step controlled atmosphere stunning may be used in poultry.	**R**	**R**	**R**
6.4 Euthanasia	Animals experiencing pain or suffering from which they are unlikely to recover must be promptly euthanized on the farm in a manner that renders the animal immediately insensible to pain. Prohibited euthanasia practices include: - Suffocation - Manual blow to head by blunt instrument or any manual blunt force trauma - Use of equipment that crushes the neck (incl. killing pliers or Burdizzo clamps) CT: Euthanizing in a way that causes unnecessary pain or suffering.	**R**	**R**	**R**
7. TRANSPORTATION	**Practice Description**	**Bronze**	**Silver**	**Gold**
7.1 General	Animal transport systems are designed and managed to ensure animals are not subjected to unnecessary distress or discomfort. Operations and handlers have emergency plans in place that address possible animal welfare problems that may arise during transport.	**R**	**R**	**R**
7.2 Transport Time	Transportation time from loading of first animal to last animal unloading is less than 13 hours. Food and water is not withdrawn for more than 12 hours prior to slaughter.	**O**	**R**	**R**
8. TRAINING & PERSONNEL	**Practice Description**	**Bronze**	**Silver**	**Gold**
8.1 Personnel	Operations ensure that all employees working with animals are trained on basic measures of animal welfare and have the relevant and necessary skills to perform their duties. Producers are thoroughly trained, skilled, and competent in animal husbandry, animal transport, slaughter, and have a good working knowledge of their system and animals under their care.	**R**	**R**	**R**
SPECIES SPECIFIC	**Practice Description**	**Bronze**	**Silver**	**Gold**

SPECIES SPECIFIC	Species specific requirements to be incorporated into above sections by species experts.			

2. Leveraging Existing Standards

As described previously, producers can demonstrate compliance by leveraging existing certifications and having third-party verification of any required Regenerative Organic Certification standards not met by the existing certification.

Producers wishing to fulfill the Animal Welfare module of Regenerative Organic Certification may do so by meeting certain existing certifications, plus additional “bolt-on” requirements. Please refer to the separate equivalency analysis to see what guidelines are already met by existing certifications.

VII. Farmer and Worker Fairness

The scope of the Farmer and Worker Fairness module within Regenerative Organic Certification includes guidelines for farmers, workers, and buyers.

The Farmer and Worker Fairness module accepts several existing certifications, with certain additional requirements. Equivalency with existing standards allows for lower costs and faster implementation of Regenerative Organic Certification, with the goal of implementing better labor practices around the world.

Monitoring and enforcement should benefit and prioritize workers. Violations should not be ongoing indefinitely, and progress and plans must be documented. Emphasis should be on capacity building and continuous improvement to better the social and economic position of farmers and workers.

1. Standards for Farmer and Worker Fairness

1. LAW AND CODE COMPLIANCE	Practice Description	Bronze	Silver	Gold
1.1 Existing Certifications	Operation has proof of existing social fairness certification recognized under Regenerative Organic Certification, as applicable to the operation being certified.	**R**	**R**	**R**
1.2 Business License	Operations have a valid business license and/or building permit where required by law to operate.	**R**	**R**	**R**
1.3 Labor Laws & Legal Compliance	Operations have researched all applicable laws related to labor conditions, working conditions, health and safety, and terms of employee and are in compliance with all local, provincial/state and national laws. Operation is in compliance with all Freedom of Association and Collective Bargaining laws, as outlined by the International Labor Organization. (http://www.ilo.org/declaration/principles/freedomofassociation/lang--en/index.htm). Workers also understand and are trained on their rights. CT: Lapse in enforcement or implementation of national Freedom of Association and Collective Bargaining laws, such as not holding elections in a timely manner or not posting the names of worker representatives as required by law. CT: Lack of proper, valid, up-to-date licenses and/or permits as required by law; inability to show proof of meeting all requirements of the permits and all relevant legal regulations. (Examples: operation of onsite boilers and generators, water extraction, wastewater discharge, emissions to air, storage and disposal of the hazardous and non-hazardous waste produced onsite, storage and use of hazardous substances that are stored or used onsite, and any incineration done onsite.)	**R**	**R**	**R**
2. CHILD LABOR	**Practice Description**	**Bronze**	**Silver**	**Gold**
2.1 Child Labor	With the exception of the operator's family members, no children below the lowest of 15, legal age, or age of compulsory schooling are employed. Children under 18 do not perform work that jeopardizes health, safety, education, and emotional or physical development. CT: Missing age verification system with no commitment to remediation. CT: Missing or falsified age documentation.	**R**	**R**	**R**
2.2 Family Members	If an operator's children or children of any employee, farmer, or worker work onsite, the operator must ensure that a child's employment does not interfere with his or her schooling, safety or	**R**	**R**	**R**

	physical development. Work performed should be light work and under the supervision of an adult. CT: Children of operators involved in more than just light work, or involved in light work that: is dangerous and harmful to health or development; prejudices attendance at school or during holidays; is inappropriate to the child's age and physical condition and jeopardizes the child's social, moral, or physical development; is conducted without parental supervision and/or guidance.			
2.3 Work Restrictions for Children and Young Workers	Children (including those residing on the farm and those of migrant workers) should not engage in hazardous work, such as heavy lifting, exposure to dangerous agriculture production activities, including exposure to chemicals/pesticides. CT: Missing required documents for young workers (health checks, work permits, list of all young workers with their entry dates, proof of age, and description of their assignment, etc.). CT: Improper job assignment or working hours for young workers.	**R**	**R**	**R**
3. FORCED LABOR & HIRING	**Practice Description**	**Bronze**	**Silver**	**Gold**
3.1 Human Trafficking and Forced Labor	People are not forced to work or remain on premises against their will. CT: Mandatory overtime (in practice or in written policy). CT: Unreasonable restriction of movement or curfews.	**R**	**R**	**R**
3.2 Hiring Practices & Brokerage Fees	Hiring practices are not deceptive and do not result in forced labor. Operator must not facilitate human trafficking. CT: Spouses and adult children of hired workers are required to work and are not voluntarily contracted. CT: Labor brokerage fees that must be paid back by workers.	**R**	**R**	**R**
3.3 Contractors	If recruited or contracted labor is used, the employer must pay any fees associated with recruitment and employees must have same rights and benefits as direct employees. All standards apply to all employees whether hired directly or through a contractor, including access to a grievance process for any complaints, the right to be free of forced labor, and no unfair deductions from paycheck. The use of recruiters and subcontractors is allowed only when employer can document a need.	**R**	**R**	**R**
4. HARASSMENT, ABUSE AND DISCIPLINARY PRACTICES	**Practice Description**	**Bronze**	**Silver**	**Gold**
4.1 Physical Abuse	No physical abuse. CT: Verbal or psychological abuse: threats, foul language towards workers, intimidation. CT: Demoralizing or overly harsh treatment or disciplinary action. CT: Monetary fines. CT: Disciplinary action administered by security personnel. CT: Lack of action taken by management to discipline personnel (supervisors or workers) who engage in any sort of harassment or abuse.	**R**	**R**	**R**
4.2 Sexual Harassment	No cases of sexual harassment experienced before, during, or after end of employment relationship. CT: Opposite sex pat-down.	**R**	**R**	**R**
5. DISCRIMINATION	**Practice Description**	**Bronze**	**Silver**	**Gold**
5.1 Discrimination	Operations do not discriminate in any aspect of the employment relationship. This can include but is not limited to recruitment, hiring,	**R**	**R**	**R**

	compensation, benefits, work assignments, access to training, advancement, discipline, termination, or retirement.			
6. FREEDOM OF ASSOCIATION & COLLECTIVE BARGAINING	**Practice Description**	**Bronze**	**Silver**	**Gold**
6.1 Protection Against Retaliation	Operation does not interfere with worker efforts to assemble, strike, or hold elections in an independent manner. This includes interference or prevention of strikes; employer proposed or initiated worker elections; worker elections conducted or facilitated by management; mandatory worker participation in elections; prevention of worker organizations from presenting to workers; prevention of trade union representatives from regular and reasonably free access to workers during workers' free time. Operation does not threaten or intimidate workers directly or indirectly with termination, pay cuts, loss of benefits, or plant closure, and does not coerce workers with promises to keep them from freely participating in union or other activities.	**R**	**R**	**R**
6.2 Employer Instituted Unions	Employers do not institute unions or alternative associations used by employers to hinder union organization (such as solidarity associations in Latin America). Employers do not utilize protection contracts (such as in Mexico).	**R**	**R**	**R**
6.3 Precarious Employment	Operation does not utilize atypical employment contracts in order to avoid workers' full or partial enjoyment of social benefits and statutory entitlements, or as a way of limiting workers' ability to freely associate and collectively bargain.	**R**	**R**	**R**
6.4 Group Protection	Standards are in place to protect the farmer, worker, and farm producer groups (co-ops etc.).	**R**	**R**	**R**
7. EMPLOYMENT RELATIONSHIP	**Practice Description**	**Bronze**	**Silver**	**Gold**
7.1 Free Access to Audits	Auditors are granted access to the entirety of requested audits. Operation does not offer bribes to auditors. CT: Denied access to parts of requested audits.	**R**	**R**	**R**
7.2 Worker Voice	Large farm operations have process to listen and address worker complaints in a transparent process. Workers are trained in worker rights and a grievance procedure is provided in a culturally appropriate way (i.e. language-accessible as well as using interactive materials and not only posted). An external workers' association or workers' right group and/or an internal independently-elected workers committee is present for and is involved in all or part the training. An independently-elected workers committee must also be involved in grievance investigation and resolution. CT: Complete lack of an internal grievance management system for personnel to voice their concerns.	**R**	**R**	**R**
7.3 Worker Independence & Empowerment	If workers would like to form an association, they are free to do so. If desired, workers hold independent, democratic elections to form worker associations for contract negotiations involving pay and conditions on farm/ranch and to create committees to address relevant ongoing challenges and opportunities, for example premium fund administration and health & safety.	**O**	**R**	**R**
7.4 Employment Contracts & Terms	Employment contracts are executed in good faith and operator honors any commitments made in a contract. CT: Requiring workers to consent to arrangements by signing any document that is blank or is not written in a language that they understand. CT: Operator does not take sole responsibility for fees associated with employment of workers. CT: Misclassification of personnel (for example: apprentices, student workers, vocational students, OT exempt vs. non-exempt). CT: Failure to meet terms of required labor contract.	**R**	**R**	**R**

8. WAGES & BENEFITS	Practice Description	Bronze	Silver	Gold
8.1 Wages	Operations pay wages and benefits in accordance with the law. CT: Wage violation. CT: Illegal cash payment. CT: Benefit payment violation. CT: Unreasonable quota system. CT: Illegal or excessive legal deductions (including charges/deposits for tools, equipment, uniforms, etc.). CT: Pay below minimum wage.	**R**	**R**	**R**
8.2 Living Wages	Workers earn a living wage as calculated based on the region's cost of living and typical expenses. Operations leverage one of the following toolkits to calculate living wage: 1. AJP Living Wage Toolkit 2. MIT Calculator +10% based on one working adult 3. For Global South workers living wages should be calculated using Global Living Wages benchmarks per region. Regions that are not covered can use the Global Living Wage Coalition's calculation manual or Fair Labor Association benchmarks. Calculations are based on a single adult without children. When a farmer or farmer group cannot pay living wages due to economic reality, a democratically elected group of farmworker representatives will negotiate current wages and incremental wage increases until the living wage can be met with farmers/owners using transparent financial information about the farm.	**O**	**R**	**R**
8.3 Manipulated or Manipulative Records	No double records or off-clock work CT: Double books; employee coaching; off-clock work. CT: Lack of, manipulated, or inadequate time records, payroll records, labor contracts, pay slips, and/or hiring notices. CT: Labor contracts not provided to workers, written in a language other than what the worker speaks, or (for those that are illiterate or for informal workplaces) are not explained to workers in order to ensure that they understand their contents. CT: Conflicting employee testimonies with payroll, time, and/or training records that result in wage or training deficiencies.	**R**	**R**	**R**
8.4 Housing	If housing is provided as a voluntary benefit, it does not represent a financial burden. Where workers are provided with housing, housing should meet local rental requirements, with rent values at or below market value, and the conditions and infrastructure of the housing ensure a reasonable level of comfort, including sanitation, safety, ventilation, reasonable protection from heat and cold, privacy, and security. This may include but is not limited to a clean personal bed and space for personal belongings, protection from extreme temperatures, good ventilation and air quality, clean water for cooking, drinking, and bathing, access to functional toilets, and access to recreational areas.	**R**	**R**	**R**
9. HOURS OF WORK	**Practice Description**	**Bronze**	**Silver**	**Gold**
9.1 Hours of Work	Operators shall not require workers to work more than the regular and overtime hours allowed by the law of the country where the workers are employed. The regular work week shall not exceed 48 hours or the maximum allowed by the law of the country of manufacture, whichever is less. Operators shall allow workers regular resting breaks during the work day and allow at least 24 consecutive hours of rest in every seven-day period. Employers shall not request overtime hours on a regular basis or require that workers work overtime. The sum of regular and overtime hours in a week shall not exceed 72 hours or the maximum allowed by the law of the county of manufacture, whichever is less. If total regular and	**R**	**R**	**R**

	overtime hours exceed 60 hours per week, this does not occur for more than 6 months per year. Exceptions may exist in certain scenarios, such as during harvest (may not exceed 3 consecutive weeks), particularly for perishable crops as long as workers willingly engage in additional hours of labor. In such instances, documentation exists. For salaried positions, hours of work must be included in any employment contract. CT: Employees work 14 consecutive days without day of rest or one or more of the following: Daily work hours exceed 12 per day; Regular work week exceeds legal limit or 48 hours per week; Total hours exceed legal limit or 72 hours per week.			
10. HEALTH & SAFETY	**Practice Description**	**Bronze**	**Silver**	**Gold**
10.1 Health, Safety, and Potential Hazards	Operation minimizes number of immediate threats to workers lives. Operations provide the following: - Personal protective equipment at the employers' expense that is functional and properly maintained, along with training for how to use and store protective equipment. - Protection from excess heat and/or access to shade, particularly in hot climates, and an allowance to take rests/breaks to access shade and/or consume water. - Access to clean drinking water. - Emergency preparedness training and access to first aid equipment with instructions. - Access to healthcare, at least for cases of workplace accidents and injuries. - Training for proper handling or storage of flammable materials/chemicals. CT: Substandard, unsafe, or unsanitary conditions that pose danger to employees or the environment CT: Unsafe exposure to airborne particles or chemical vapors CT: Unsafe handling and/or storage of hazardous chemicals CT: Use of chemicals and hazardous substances that are not allowed by local law or by international standards	**R**	**R**	**R**
10.2 Exits	Buildings on an operation have at the higher of two exits or whatever is required by law, that ensure safe evacuation for all workers. All exits remain unlocked.	**R**	**R**	**R**
10.3 Buildings	Buildings constructed legally and for the purposes they were intended. Buildings are designed to minimize energy usage, water usage, and waste, and use low VOC paints and materials.	**O**	**R**	**R**
10.4 Privacy	Workers are provided with a reasonable level of privacy.	**R**	**R**	**R**
11. BUYERS	**Practice Description**	**Bronze**	**Silver**	**Gold**
11.1 Buyers	All contracts between producers and buyers are fair and equitable. This includes fairly negotiated and equitable contracts with producers, fair conflict resolution, openness to long-term commitments, and buyers' right to require up-to-date farmer certification of all applicable products. Buyers make timely payments and provide a sourcing plan to producers with estimates of future purchases. Buyers also respect and work with existing producer groups, rather than to circumvent established groups to contract directly with an individual producer or producer subgroup. Buyers must enter long-term commitments when desired by farmers or be transparent with farmers and the certification body if they do not enter long-term commitments with farmers.	**O**	**R**	**R**

	Buyers do not break commitments that adversely affect producers. Producers do not break commitments that adversely affect buyers.			
11.2 Bargaining	All farmers have the right to freedom of association and to organize and engage in collective bargaining, free from retaliation of any kind by the buyer or his/her agents. If farmers so choose, contracts between buyers and farmers are negotiated using a collective bargaining process. If a farmer chooses to select a representative, the buyer recognizes and negotiates with representatives chosen by the farmer or democratically chosen by the farmer's association in the case of collective bargaining.	**R**	**R**	**R**
11.3 Fair Pricing	Pricing between buyers and producers is mutually agreed by all through dialogue and participation by both to provide fair pay to producers. - Where Fair Trade pricing structures exist, these are used as a minimum. - Where Fair Trade pricing structures do not exist, pricing should be based on the socially acceptable remuneration (in the local context) considered by producers themselves to be fair. Fair Pricing and Fair Payments guidelines are not applicable to producers acting as buyers when buying organic or non-organic commodity grains on an open market.	**O**	**R**	**R**
11.4 Fair Payments	Payments received by farmers should always meet the cost of production which includes paying living wages, as described in Regenerative Organic Certification requirements. Documented real costs of productions calculated by producers or producer groups or average costs calculated regionally should be prioritized. When real costs are not known, local market prices or established fair trade minimum prices can be used if these can be determined to cover cost of production; if these prices do not cover cost of production, 10% should be added. Fair Pricing and Fair Payments guidelines are not applicable to producers acting as buyers when buying organic or non-organic commodity grains on an open market.	**R**	**R**	**R**
11.5 Transparent Negotiation	Negotiations between producers and buyers include: - Transparent communication of pricing and contracting terms - Openness to exploring and negotiating all terms of contracts and clarifying expectations clearly - Providing market information on demand, supply, pricing, and transfer of value in the chain	**O**	**R**	**R**
11.6 Capacity Building	The operation works towards an increase in the capacities of its members and the organization. Mechanisms for training are developed to facilitate the process of building capacities in the productive, technical, social, organizational, commercial and pubic impact areas. For example, buyers can work directly with small producers to develop specific activities to help these producers improve their management skills, production capabilities and access to local / regional / international / Fair Trade and mainstream markets as appropriate.	**O**	**R**	**R**
11.7 Act of God Clause	All contracts between farmers and crop buyers shall include an "Act of God" clause, which obligates the producer to deliver only what is harvested from the acres covered by the contract. Under no circumstances shall farmers be required to purchase crop from outside the farm to fulfill delivery requirements of a production contract. Suffering the loss of crop due to natural-occurring flood, drought, wind, hail or other causes beyond the producer's control must never place additional burden on the farmer to source replacement crop.	**R**	**R**	**R**

12. OTHER	Practice Description	Bronze	Silver	Gold
12.1 Grower Groups	Small-scale farmers internationally must be free to organize in some way. In the Global South, to mitigate the risk of exploitation of small-scale producers who are not organized into formal democratic structures should still hold annual meetings and take on some of the responsibilities of a traditional farmer organization (i.e. electing representatives to negotiate with buyers).	**O**	**R**	**R**
12.2 Split Operations	Workers are paid a consistent rate for same or similar work and subject to consistent working conditions, whether they are working on the portion of the operation that is certified or not. - Bronze and Silver: Allows for 50% split operations - Gold: No split operations	**R**	**R**	**R**

2. Leveraging Existing Standards

As described previously, producers can demonstrate compliance by leveraging existing certifications and having third-party verification of any required Regenerative Organic Certification standards not met by the existing certification.

Producers wishing to fulfill the Farmer and Worker Fairness module of Regenerative Organic Certification may do so by meeting certain existing certifications, plus additional "bolt-on" requirements. Please refer to the separate equivalency analysis to see what guidelines are already met by existing certifications.

VIII. Additional Requirements

All aspects of Regenerative Organic Certification shall apply to different stages of production and should be guided by a Regenerative Organic System Plan. Below are specific requirements.

1. GENERAL	Practice Description	Bronze	Silver	Gold
1.1 Regenerative Organic System Plan	Operation has a documented Regenerative Organic System Plan, which includes implementation and timing of: - Soil Health and Land Management Practices - Animal Welfare Practices - Farmer and Worker Fairness Practices Plan also includes: - Annual inventory & assessment of top 10 (highest volume) native plants and top 10 (highest volume) animals on farm - Annual inventory & assessment of farmers & workers on farm - Plan to overcome shortcomings, where operations are not able to meet certain Supplemental items. Operations are encouraged to use the Cool Farm Tool to understand the carbon sequestration potential for incorporating certain practices within an operation. CT: No plan in place	**R**	**R**	**R**
1.2 Supply Chain Requirements	Certification required at the following stages of the supply chain: - Bronze: Producer level (farm or ranch) - Silver: Producer level (farm or ranch) - Gold: Producer level, plus one or more major stages of manufacturing or processing	**R**	**R**	**R**

IX. Appendix

1. Definitions for Prohibited Animal Handling & Management Practices

- **Beak Trimming / De-Beaking:** The removal of all or a portion of the beak of a bird.
- **Caponization:** Castration of chickens, turkeys, pheasants, and other avian species.
- **Cattle Wattling:** The surgical separation of two layers of the skin from the connective tissue for along a 2 to 4-inch path on the dewlap, neck, or shoulders used for ownership identification.
- **Clipping, Grinding, or Filing of Teeth:** Shaving or removing an animal's teeth.
- **De-Clawing / Toe Clipping:** The removal of an animal's claws by amputating all or a part of an animal's nail and distal joint.
- **De-Snooding:** The removal of the turkey snood (a fleshy protuberance on the forehead of male turkeys).
- **De-Spurring:** Removing spurs from animals.
- **Disbudding:** The removal or destruction of horn-producing cells before an animal's horns become attached to its skull.
- **Dubbing:** The removal of poultry combs and wattles.
- **Forced Molting:** The induced shedding old feathers, hair, or skin, or an old shell, to make way for a new growth by unnatural methods or by withdrawal of feed.
- **Hot / Cold Branding:** Creating identification markers on animals by pressing an extremely hot or cold branding iron onto their flesh.
- **Mulesing:** The removal of skin from the buttocks of sheep, approximately 2 to 4 inches wide and running away from the anus to the hock.
- **Pinioning:** Surgically removing a bird's pinion joint.
- **Prodding:** Striking, poking or electrocuting animals with an implement to influence and control their movement.
- **Tail Docking:** The cutting or shortening of an animal's tail.
- **Tusk Removal:** The amputation of an animal's tusks.

2. Soil Health Lab & In-Field Tests

Regenerative Organic Certification relies on two methods of testing: (1) a Soil Health Lab Test and (2) a Soil Health In-Field test. While both tests provide producers with valuable information, when used together, they provide a holistic and cost-effective method of understanding soil health and the impact of agricultural practices.

Test results are only as accurate as the inputs that are collected. For this reason, it is imperative that auditors and operators provide proper training for both lab and in-field testing. A portion of this training should be focused on consistency of measurement, especially related to collecting samples and conducting tests at the same point and conditions each year.

Soil Health Lab Test

The following table highlights the soil indicators to be lab tested. After an initial baseline test is conducted, each indicator should be measured every three years. Because total organic carbon and bulk density requires a separate, more in-depth measurement process, these two items should be measured every six years. Soil Health Lab Tests require third-party soil collection and testing.

The Soil Health Lab Test should be performed by an accredited lab or organization, such as a university, C-MASC lab, or private organization with an expertise in analyzing soil health. Tests are to be conducted at initial certification inquiry, and then every 3 years thereafter, except where noted. For locations where it is prohibited to import or export soil samples, other lab tests may be used with supporting documentation, provided the test results include all of the required metrics. Producers must allow access to land for deep core soil samples, which are outside the scope of the Soil Health Lab Test, once every six years.

For example, operations may use Cornell University's "Comprehensive Assessment of Soil Health: The Cornell Framework Manual" whenever possible in order to ensure consistent testing. All but three of the indicators are included in Cornell's Standard Soil Health Analysis Package for $110 per sample (pricing as of July 2017). Mineralizable nitrogen, bulk density, and total organic carbon are not standard offerings; however, Cornell has indicated that they are willing and able to test them at minimal extra cost (approx. $50 per sample). If another laboratory is used, the laboratory must carry a certification and must participate in the North American Proficiency Testing Program (NAPT), follow the protocols outlined by Cornell's Standard Soil Health Analysis Package, or follow the protocols outlined in the Soil Science Society of America series – Methods for Soil Analysis.

Soil Health Lab Tests should be done for each distinct parcel of land on a farm, and one sample should be taken for approximately every 20-50 acres for farms of less than 150 acres. For farms larger than 150 acres, a sample should be taken every 80 acres, or 2 samples per quarter. Further details about soil testing procedures and indicators can be found with *The Cornell Framework Manual Comprehensive Assessment of Soil Health*.

Indicator	Measures	Units	Interpreting Results
Active Carbon	The proportion of organic matter that is most readily available to microbes.	ppm	Largely responsible for fueling microbial activity; improves with additions of "fresh" organic material (manure, leguminous cover crop residues, continual plant inputs through roots). Like soil respiration, active carbon can be a quick-to-respond soil health indicator.
Aggregate Stability	An indicator of soil structure and resistance to intense "wetting" episodes like heavy rain and irrigation.	%	An indicator of soil structure, higher aggregation indicates optimum air and water movement through soils; aggregation generally improves with no-till and the addition of organic matter; a slower to respond soil health indicator, as aggregates are a product of microbial activity (~3-5 years).
Available Water Capacity	The amount of plant available water in the soil.	gram H_2O/gram soil	Generally increases with the addition of organic matter in both the short and long-term; important to gauge a soil's resistance and resilience to drought conditions.
Bulk Density**	A measure of soil compaction.	g/cm^3	Both an indicator of soil structure (heavily compacted soils have higher bulk densities) and also necessary to measure carbon stocks over time. Generally improves in the mid-term (~2-3 years) with the addition of organic matter and adoption of regenerative practices.
Extractable Phosphorus	An indicator of how much P is available to plants.	ppm	More is generally better, however too much can cause environmental damages such as eutrophication.
Extractable Potassium	An indicator of how much K is available to plants.	ppm	More is generally better and can be adjusted using specific amendments and organic fertilizers.
Minor Elements (Mg, Fe, Mn, Zn)	Concentrations of essential plant-available minor elements.	ppm	Taken up in smaller concentrations than N, P, and K, these minor elements are still essential to plant growth
Organic Matter	A measure of all material that was or is living in the soil.	%	Confers a host of beneficial biological (food source for microbes), physical (improves soil structure, holds onto water, improves aeration), and chemical (binds nutrients) properties. In the short-term (1-3 years), soil organic matter levels can increase with the addition of compost, manure, and crop residues, but to sustain and build levels over time, continued regenerative practices are necessary.
pH	A measure of soil acidity.	log-scale	Soil acidity can impact nutrient availability (at low pH values, certain nutrients can become unavailable to plants). Specific crops can require specific pH ranges, and the pH of a soil can be adjusted through the use of amendments (e.g. lime additions for very acid soils, or sulfur additions for basic soils).
Potentially Mineralizable Nitrogen**	An indicator of plant-available nitrogen.	micrograms of N/ gram of soil/week	Most N in soils is bound up and not plant available so this measure provides an indicator of how much can be converted by microbes into plant available forms.
Soil Protein	A proxy for organic nitrogen (non-plant available forms of N).	mg protein/ gram of soil	Serves as a proxy for how much N could be made available for plants (i.e. mineralized) through microbial activity. Generally increases with additions of organic materials and minimized soil disturbance.
Soil Respiration	A measure of how active the microbial community is within a given soil.	mg CO_2/gram of soil	Generally, more respiration means more biological activity, and thus indicates nutrient flows and availability (as microbes decompose organic matter to make nutrients available to plants). Generally improves with the addition of organic materials and is probably one of the fastest to respond and most sensitive indicators of changes in management.
Soil Texture	The percent sand, silt, and clay in the soil.	% sand, % silt, % clay	An important mediator variable to determine a soil's potential for accumulating organic matter; an inherent soil characteristic, soil texture generally does not change in response to management.
Subsurface Hardness	An indicator of soil compaction at depth (15-30 cm).	psi	Often an issue in tilled soils, and generally improves with the adoption of no-till practices though could be slower to respond than surface hardiness (>3 years).
Surface Hardness	How resistant a soil is to penetration; an indicator of soil compaction at the surface (0-15 cm).	psi	A lower value indicates enhanced movement of water and air; generally improves with the adoption of regenerative practices in the shorter and longer-term.
Total Organic Carbon**	The amount of organic carbon within a gram of soil.	gram C/g soil	Necessary to accurately measure carbon stocks over time. Significant (and meaningful) changes in carbon stocks are very difficult to detect over short time scales (<5 years).

***Not currently included in standard Cornell Soil Health Test, but can be added*

Soil Health In-Field Test

Soil Health In-Field Tests, more qualitative in nature, provide valuable insights on the health of an operation's soil. Soil Health In-Field Tests should measure the below indicators against the applicable ratings. In-field tests are optional.

Indicator	Measures	Units	Rating	Interpreting Results
Compaction	How easily penetrable the soil surface is	Can be measured using a wire probe	Poor: wire probe will not penetrate Fair: wire probe penetrates with difficulty to less than 20 cm Good: wire probe penetrates to 20 cm or more very easily	A heavily compacted soil can restrict root growth and limit air and water movement in soil. This is a simple field measure of surface and sub-surface hardiness.
Crusting	A measure of the soil's surface crust	Measured by visual observation	Poor: surface seals after rain Fair: some surface sealing, minimal restriction of seedling emergence Good: open, porous soil, seedlings emerge without any restriction	Surface crusting can indicate poor water and air movement in soils and is generally associated with high levels of tillage and poor structure. This qualitative assessment is covered by aggregate stability.
Diversity of Macro-life	The amount of different soil animals in the soil	Number of soil animals per observational unit (e.g. field or sub-plot)	Poor: < 2 soil animals Fair: 2-5 soil animals Good: >5 soil animals	A higher diversity of soil animals indicates a healthier, more robust soil food-web, which fuels nutrient availability.
Ground Cover	The percentage of ground covered by plants, plant residues, or mulch	Percentage cover per observational unit	Poor: < 35% ground cover Fair: 35 - 50% ground cover Good: >50% ground cover	A higher percentage of ground cover protects soil from erosion, provides soil animals with a food source, and improves soil structure. Observational should be conducted for each distinct field within an operation.
Infiltration	How easily a known volume of water enters the soil	Visual assessment of surface ponding	Poor: water ponds on the soil surface Fair: some ponding on the surface Good: no ponding	A field infiltration test can provide an indication of how easily water moves through the soil; less surface ponding means soil can easily infiltrate and move down the soil profile to provide water for plants. This field measurement is covered by water holding capacity and aggregate stability in the lab.
Plant Health	A visual measure of crop leaf color, height and uniformity	Visual assessment	Poor: yellow, stunted growth, variable stand height, spotty germination Fair: variation in color, height, and germination Good: dark green, even growth and germination	Identifying zones of uneven or stunted crop growth can help a farmer locate problematic areas on a farm that may require specific attention and management interventions.
Root Growth	A visual measure of fine root growth in the surface soil (0-5 cm)	Visual assessment	Poor: restricted roots, few fine roots Fair: somewhat restricted roots, some fine roots Good: healthy, uninhibited roots, lots of fine roots	Inspecting fine root growth provides an idea of how well the plants are able to put out roots and can indicate whether or not there are restrictions to root growth either physically (poor soil structure) or chemically (nutrient deficiencies).
Structure/ Aggregation	How easily a soil crumbles, the amount of soil bound up in aggregates	Measured by touch, feel, and observation of soil	Poor: hard soil, lots of clods, difficult to break apart Fair: Soil crumbles with pressure, few clods Good: soil crumbles easily, no clods	A soil that crumbles easily promotes air and water movement through soil, indicates robust biological activity (as microbes generate soil aggregates). This is a qualitative assessment that generally covers the lab-measured aggregate stability and should be conducted for each distinct field within an operation.

3. Labeling and Chain of Custody

Products that carry the Regenerative Organic Certification product label must demonstrate chain of custody from the farm/ranch through to the finished goods, including:

- **Management Systems:** Policies, procedures, accountability, training, implementation, communication, monitoring, and continuous improvement.
- **Input Storage Segregation:** Ensuring claimed material is kept separate in the warehouse, and not mixed or blended with conventional material.
- **Inventory Management:** Quantities of claimed raw material and finished goods must be recorded and be subject to reconciliation.

- **Separation**: All products should be clearly identified in some way while they are in production. When Regenerative Organic Certified and conventional materials are processed in the same locations or machinery, there should be a clean out procedure between batches.
- **Traceability Documentation:** Commercial and shipping documents must be available throughout the supply chain that attest to the origin of the claimed material.
- **Volume Reconciliation:** Accurate data on the ratios of raw materials to finished goods must be available for review, including the average amount of loss to be expected during production processes.
- **Labeling and Packaging:** Labeling claimed at every level of the supply chain.

4. Auditor Requirements for All Modules of Regenerative Organic Certification

Auditor remuneration is not incentive based, nor based on the outcome of inspections. All approved auditors must receive initial training, as well as ongoing continuous education and periodic evaluation.

Visual inspections should be approached with collaboration and mutual respect towards suppliers at all levels, with a focus on education and sustainable remediation. Farm, ranch, or facility visits are preferred during the production cycle, with special attention paid to periods of increased risk to animal welfare, such as castration or other mutilations, birthing, shearing, loading, and similar. The scope of the on-site audit should include, but is not limited to, a walk-through of the facility and review of the following items:

- Visual inspection of the treatment of the workers and animals (if applicable to the entity);
- Visual inspection of the workers' and animals' environment (if applicable to the entity);
- Review of product labeling practices and procedures;
- Review of segregation and separation practices and procedures;
- Review of traceable supply chain process implementation;
- Worker interviews to ensure proper implementation of traceability policies, procedures, documentation, training, and animal welfare legal compliance;
- Issues identified during the document review;
- Complaint policies;
- All other requirements as required by Regenerative Organic Certification.

Documentation required to demonstrate compliance must be made available for review during the audit or pre-audit process at all levels of the supply chain. Additionally, auditors must be allowed to conduct private management and worker interviews in the local language at all levels of the supply chain to assess proper implementation of traceability policies, procedures, and documentation, training, and animal welfare compliance. The maximum period between on-site assessments should not be more than 18 months.

<u>Auditor Requirements Specific to Animal Welfare:</u>

Auditors should be Professional Animal Auditor Certification Organization (PAACO) or equivalent trained and certified. Auditors must have a minimum of 25 field audits, with a minimum of 10 accompanying or being shadowed by a senior auditor. Remote video auditing is encouraged, but not required. Auditors must have a strong working knowledge of animal welfare risks in the species being assessed.

Auditors will be allowed to review all relevant chain of custody documentation, animal welfare legal compliance documents, veterinarian reports, and other paperwork at each level in the supply chain that proves the implementation of animal welfare practices, traceability management systems, and employee training.

<u>Auditor Requirements Specific to Farmer and Worker Fairness:</u>

Auditors must provide current resumes, professional references, proof of completed trainings/certifications, and sign a non-disclosure agreement.

Each audit team must consist of at least one lead-qualified auditor and two levels of auditors (i.e., Level 1 vs. Level 2 or Lead vs. Support auditors). Auditors, which can be employed by an organization or act as an independent contractor, must be approved on an individual basis rather than whole organizations or companies. Auditors will be monitored and evaluated through feedback mechanisms which can include supplier questionnaires and shadow audits. Auditor approval may be revoked at any time due to inadequate performance.

References and Resources:

ISO 19011: Guidelines for auditing management systems
Section 7.2 “Determining auditor competence to fulfill the needs of the audit programme”
https://www.iso.org/obp/ui/#iso:std:iso:19011:ed-2:v1:en

GSCP (Global Social Compliance Programme)
Table A - Core auditor competence and prerequisite reference requirements (for social and environmental compliance assessment), pg. 13 http://www.theconsumergoodsforum.com/images/the_forum_images/strategic-focus/gscp/gscp-work/reference_tools/pdf/GSCP_Auditing_Competence.pdf

APSCA (Association of Professional Social Compliance Auditors)
Competency Framework for Social Compliance Auditors
http://www.theapsca.org/uploads/7/3/4/0/73406857/apsca_competency_framework_v5_.pdf