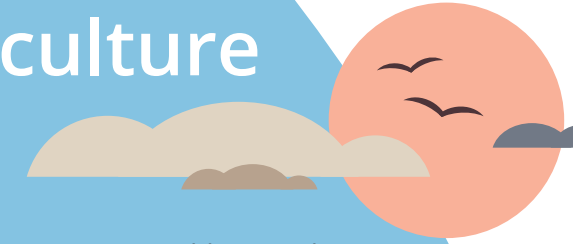


# Regenerative farming and agritech: Support for sustainable agriculture



Place a well-resourced, practical, and innovative provincial extension network that is responsive to the realities and challenges faced by producers and agritech entrepreneurs.

Understand current baselines and benchmarks, develop regenerative agriculture guidelines, create incentives and reduce barriers for producers to further adopt and implement regenerative agricultural practices, as well as the technologies that support adoption.



Ensure sustainable agriculture, regenerative agricultural practices and agritech programs are emphasized, developed, and integrated across government.

Increase knowledge on the state of soil health in the province, address the fundamental components that comprise soil health and create opportunities to leverage soil as tool to store carbon.

Address policy barriers, in partnership with other Ministries and agencies where needed, to expanding Indigenous agriculture and traditional food practices.

Ensure government programs and funding prioritize Indigenous Food Sovereignty and food security.

Advance Indigenous-led extension services as well as Indigenous-led training, skills, and capacity development initiatives in agriculture and food.



Ministry of Agriculture and Food

## Goals

### Economic Profitability

BC's primary producers are economically sustainable.

### Environmental Stewardship

Sustainable, regenerative agricultural practices, principles and technologies that address climate change are continuously adopted throughout BC.

## Values

### Appreciation and Respect

We acknowledge that sustainable agriculture and regenerative practices have been used by Indigenous Peoples and farmers for generations.

### ReconciliAction

We take action on Indigenous Food Sovereignty and Indigenous-led agriculture and work to redress historical injustices.

### Perseverance

We recognize that the agricultural sector, through environmental stewardship, can address climate change through persistent action to further reduce greenhouse gas emissions and sequester carbon.

### Collaboration

We listen, evolve, and support each other in the pursuit of our collective vision.

### Social Responsibility

BC's food systems are secure, resilient, and sustainable.

### Curiosity

We build on existing strengths and knowledge, iterate, learn, and take meaningful steps forward.

### Data-driven and Science-based

We use data and evolving, peer-reviewed science to chart a clear path, measure our impact, and course correct when necessary.

### Indigenous Agriculture

Indigenous-run agriculture supports the economic interests, food security, food sovereignty, and communities of Indigenous People in BC.

## Mission

To accelerate sustainable agriculture through the implementation of regenerative agricultural practices, championing appropriate tools and agritech solutions, and fostering knowledge and technology transfer to help prepare for and mitigate climate change to ensure a food secure BC.

## Vision

British Columbia's food systems follow the principles of sustainable agriculture to continuously improve our lands, waters, and ecosystems.

Three Pillars of Sustainable Agriculture: Environmental Stewardship, Economic Profitability, and Social Responsibility



Ensure government programs and funding prioritize food system resiliency and food security.

Increase public awareness about the vulnerability of and the potential for BC's local food systems, including how agriculture positively impacts the environment and supports climate action.

# Glossary

## Agritech (agtech)

The development and application of technology to the agricultural and aquacultural sectors with the aim of optimizing production, profitability or environmental sustainability.

## Extension network

Linking applied research, knowledge dissemination, and support for knowledge, method, and tool adoption.

## Food systems

Land, water, people, ecosystems, producers, inputs, transportation, food processing, distribution, retail, and consumers.

## Food sovereignty

The right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.

– 2007 Declaration of Neyelani

## Regenerative agriculture

Regenerative agriculture is a holistic, circular approach to farming that strives to improve the health of agroecosystems and the natural ecosystems that support them. Healthy ecosystems are self-renewing and resilient. Indicators and outcomes associated with healthy agroecosystems include:

- Biodiversity — Where variation among organisms in an ecosystem is promoted.
- Ecological balance — Where diverse beneficial populations dampen pest outbreaks; local resource cycling is prioritized to prevent nutrient accumulation, depletion, and pollution; and greenhouse gas emissions are minimized and carbon sequestration is maximized.
- Soil health — The capacity of a soil to support agricultural productivity and a diverse microbial community; improve air and water quality; and sequester carbon.
- Water balance — Where freshwater use aligns with local and temporal availability; water is conserved through retention and percolation; any runoff is clean and safe; groundwater depletion is avoided; and irrigation efficiency is prioritized when and where fresh water is scarce.

Regenerative agriculture seeks continuous improvement, and attends to the welfare of all species involved, including farmers, farm workers, livestock, and pollinators. BC's varied landscape and multiple sectors will result in diverse practices applied on regenerative farms. Regenerative agricultural practices include:

- Agroforestry (e.g., windbreak, alley cropping, hedge rows)
- Animal integration in the cropping system (e.g., animal grazing/tillage, silvopasture)
- Biochar
- Conservation tillage practices (e.g., reduce tillage, no-till, strip tillage)
- Cover cropping (e.g., green manures, winter cover crops)
- Farmscaping
- Increasing plant diversity (e.g., crop rotation, polyculture)
- Integrative Pest Management (e.g., trapping and monitoring, chemical control as last resort, prioritizing low-impact products, prioritize cultural, physical, behavioural and biological control)
- Managed grazing
- Mulching
- Organic matter recycling (e.g., compost, bio-solids, manure)
- Organic production (e.g., organic pesticides and fertilizers, avoids inputs with adverse effects, relies on ecological processes, biodiversity, and cycles adapted to local conditions)
- Set-asides (e.g., fallow fields, grassland set-asides)

## Soil health

Microbiology and soil matter, nutrient and water cycling, plants, water and air quality.