

TYPES OF FARMING SYSTEMS



BRIDGE TO
LAND WATER SKY

This factsheet provides a brief overview of three farming systems used in western Canada: conventional, organic, and regenerative. Each system has its own goals and ways of working with the land, shaped by local conditions, economic factors, and both established and emerging knowledge. Conventional agriculture is the most widely used, while organic and regenerative systems are practiced on a smaller scale. Organic management follows strict certification standards, and regenerative management is a newer, evolving concept with no single definition. Many operations use a mix of practices from more than one system.

Conventional

Organic

Regenerative

Planting

- Monocropping - one crop grown at a time
- Crop rotation cycles
- Genetically modified seeds and hybrid varieties
- Reduced tillage

- Intercropping - multiple crops grown at a time
- Diverse crop rotations
- Certified non-genetically modified seeds

- Cover cropping, intercropping and diverse crop rotations
- Minimal tillage
- Wide variety of species

Weed Management

- Synthetic herbicides and pesticides as needed
- Herbicide-resistant crop varieties

- Organic fungicides
- Biological controls
- Mechanical disturbance
- Mulching
- Crop rotation and cover crops

- Cover crops, intercrops, and diverse crop rotation
- Chemicals applied when needed using variable rate technology
- Livestock grazing

Disease Management

- Synthetic fungicides
- Disease-resistant crop varieties
- Crop rotation

- Organic fungicides
- Disease-resistant crop varieties
- Crop rotation

- Biological soil amendments and crop diversity to naturally suppress diseases

Insect Management

- Synthetic insecticides
- Insect-resistant crop varieties

- Organic insecticides
- Biological controls

- Cover/intercropping
- Buffer strips/hedgerows to support predators and pollinators

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Nutrient Management

- Synthetic fertilizers
- Crop rotation cycles

- Organic fertilizers, compost and manure
- Cover cropping and crop rotation to maintain soil fertility

- Cover/intercropping
- Incorporating legumes
- Livestock integration
- Use of slow-release fertilizers or inhibitors

Economics

- Standard commodity crops in well-established markets
- Most costs are annual purchases
- Budgets planned around known input cycles

- Premiums on certified-organic eligible crops in niche markets (specialty buyers or direct-to-consumer channels)
- Higher labour inputs
- Certification, inspections, and fees are needed

- Commodity sales, new niche markets emerging
- Up-front investments, savings appear over several years
- Requires more planning and cash reserves
- Long-term sustainability and soil health

Farming System	Pros	Cons
Conventional	<ul style="list-style-type: none"> • Predictable yields • Fits established commodity markets 	<ul style="list-style-type: none"> • Reliance on external inputs • Potential long-term environmental impacts to soil, water, biodiversity
Organic	<ul style="list-style-type: none"> • Price premiums • Reduced exposure to synthetics 	<ul style="list-style-type: none"> • Certification costs • Buffer issues with neighbours • Potential yield gaps during transition
Regenerative	Improved: soil health, water retention, biodiversity, and long-term climate and economic resilience due to diversification	<ul style="list-style-type: none"> • Need for new skills • Variable short-term economics • Limited standardized markets and certification pathways

For those exploring new approaches, starting small can be helpful—such as assessing soil health, reviewing equipment and labour needs, or testing new practices on a limited area. Trying one or two changes at a time makes it easier to see how each practice affects yields, soil conditions, and long-term land health. Some benefits take time to appear, but there are many ways to meet land-care goals now and into the future.

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