

Economics of organic farming

Extracted from COG's
Organic Field Crop Handbook

A SUSTAINABLE AGRICULTURE SYSTEM MUST, by definition, meet the needs of the present generation without jeopardizing the needs of future generations. It must also be economically sustainable to the farmer, and to society as a whole.

Organic farmers diversify their businesses by growing several crops at one time, often having both livestock and field crops, and sometimes value-added enterprises as well. The diversification reduces economic risk.

As well, enterprise diversification makes it easier for farms to be more self-sufficient in terms of nutrients, livestock feed, soil organic matter and energy.

Many experienced organic farmers have crop yields as high as, or higher than, the average conventional yields. However, the **average** organic crop yields are often lower than the **average** conventional yields.

“Simply put, our Canadian organic industry cannot provide anywhere near enough to meet the demand for the foreseeable future. Therefore, we should be encouraging many more farmers, input suppliers, and food processors to become organic.”

– Peter Stonehouse
University of Guelph
October 2000

Differences between average yields reflect not only different farming practices but the differences in experience. The organic industry is expanding so rapidly that many organic farmers are relatively inexperienced with organic methods.

The most challenging time is the transition period as farmers switch from conventional to organic agriculture. During this period, the price premium is absent and yields are low.

Sometimes farmers can receive a minor price premium for transitional production, with a price higher than conventional prices, but lower than the certified organic prices.

During the early stages of conversion, some farmers have reported drops in yields of up to 30%. Later, yields tend to increase with the number of years under organic management as farmers gain experience and the soil improves.

Some farmers find that the yields rebound within just a few years; this is most likely to happen with farmers who were using only minimal inputs. Other farmers, who were very dependent on herbicides, fertilizers and pesticides, find that it takes up to a decade for their yields to recover.

Global warming is creating increasingly unpredictable weather patterns in Canada. Organic farms have higher yields than conventional crops when under stress caused by drought, heat, excessive rain or unseasonably-cold weather. As well, organic crops have higher pest and disease resistance.

Cost of production

Organic farms have lower costs of production than conventional farms, with much less emphasis on purchased inputs.

Synthetic fertilizer and pesticide purchases are eliminated, and costs of purchased feed, veterinary bills, and replacement livestock are lower. In addition, organic farmers have lower fixed (overhead) costs for depreciation and interest charges attached to capital inputs, such as machinery and equipment. On balance, input costs are lower on organic farms.

Organic farming methods replace herbicides with mechanical cultivation and other management practices to provide weed control. Tillage for weed control after plant emergence is relatively shallow with low potential to compact the soil.

Some argue that weed control increases tillage requirements and costs. In practise, this has not been the case. By improving soil structure and with good management practices, organic farmers have discovered that they require no more, and in some cases less, tillage than their conventional neighbors.

Net farm income

The net income of organic farms appears to be slightly higher than for conventional farms. In general, expenses are lower and the income is greater (due to the price premium).

Price premiums vary between crops and over time. The organic industry is changing rapidly, leading to price instability. For example, a high premium price for one crop can lead many farmers to grow that crop. The market is then flooded and the price plummets. Many believe that over time, the price premiums will stabilize.

The high value of organic crops is offset by including lower-value crops in rotation. Green manures and pasture crops, though valuable in their soil improvement ability, do not generate high economic returns.

Intercropping is one way to incorporate low-value crops into the rotation, while still growing valuable cash crops. Crop rotations also reduce risk. By growing several crops at any one time, the farm income will be buffered from both price fluctuations in any one crop and crop failure.

Marketing

The demand for organically-produced foods is growing rapidly, not only in Canada, but also in North America, Japan and Europe. This rapid growth has resulted in fluctuations in the market.

For example, some of the markets have very specific demands in terms of crop quality and the demands change from year to year. The organic industry is still developing, and the infrastructure in terms of transportation systems, wholesalers and distributors is in its infancy.

This text is extracted from COG's [Organic Field Crop Handbook](#). For the full text, and much more **outstanding information on organic farming, you can **order this book** at the COG website (www.cog.ca).**