



Horticulture



The horticultural industry comprises fruit and vegetable production for consumption locally and in export markets, as both fresh and processed products.

Horticulture is an important source of external revenue and employment with over eight million hectares of each of the major tree fruit crops, vines and olives grown globally, producing about 60 million metric tonnes of each fruit type.

Industry Risks

All crops are exposed to weather perils, the importance of each varying according to the crop type and region:

Hail damages ripening fruit directly, and in severe cases also affects the trees

- Spring frost occurring early in the growing season burns the early growth during of shortly after bud burst or causes developing flowers to abort, often resulting in total crop losses
- Pre-harvest frost damages fruit close to harvest, causing an internal glassiness that often cannot be detected from the outside. Packhouses have a very low tolerance for this type of quality damage
- Windstorm and hurricanes damage not only one season's crop, but also the plantations by ripping out trees with shallow root structures
- Flooding and rainfall destroy or damage productive trees following root damage by asphyxiation, preventing or delaying normal farming operations, or leading to the onset of rot
- Drought affects non-irrigated crops directly, and irrigated crops indirectly through ground water shortages
- Fire is a less common risk that can nevertheless affect plantations
- Epidemic diseases can spread through large production areas which are then subject to uprooting and replanting with resistant varieties to eradicate the disease.

Some of these perils are localized, but others such as frost, wind and drought, have the capability to cause catastrophic losses over a widespread area.



Techniques for on-Farm Risk Management

The opportunity for on-farm risk management is limited. Initial site selection and choice of crop type and variety determine the exposure to a large extent. There is a subsequent, more limited, opportunity to reduce risk through tree management practices as well as through physical protection of the crop. Examples of physical protection include hail nets, wind machines for frost protection, and flood management systems. Once a crop is damaged, the ability to mitigate any loss through appropriate salvage operations is an important aspect of risk evaluation.

Need for External Risk Transfer

There is an international trend for farms to become larger and more vertically integrated. This creates a corresponding reliance on financial institutions and often a commitment to shareholders or investors. Under these circumstances, there is a dependence on insurance products as the only method of risk transfer capable of providing adequate compensation in the event of a loss.

Available Insurance Products

Insurance products are available for many crop types and perils. Common products indemnify loss of revenue or production costs already expended. Because of a high seasonal variation in production levels, policy deductibles tend to be higher than for other forms of insurance.

The frequency and severity of all weather perils is site specific, and the range that can be insured may be limited where there is a high potential for selection by the farmer against the insurer. Further limitations may be appropriate where local insurance and assessment expertise are developing, or where there is an inadequate loss history or other insufficient data to allow a reasonable degree of confidence in rating the risk. As a general rule, hail insurance is the most readily available, with other perils evaluated on a case-by-case basis.

Systems of risk evaluation are rapidly becoming more sophisticated, enhancing both the availability of insurance and its affordability. Insurance products are becoming more advanced, with policies providing yield and quality loss protection. Improved data analysis techniques and understanding of risks are now enabling more difficult perils such as frost to be more widely insured.