



Canopy performance under extreme conditions

Ray Palmer, Growcom Granite Belt Industry Development Officer

The western part of the Pozieres area north of Stanthorpe, Queensland was hit by a massive hail storm on 24 October that lasted for an hour with hail varying in size from peas and marbles to golf balls.

Although the majority of the Queensland apple and stone fruit industry was unaffected by the storm, those that were hit were devastated.

In the affected area the majority of orchards are covered by hail netting. The severity of the storm was such that a significant number of these structures failed. Within the worst hit area, however, a number of structures did stand up, and those that didn't had varying degrees of damage.

It is important to note that away from the worst affected area, many orchards that would have been wiped out were virtually unaffected because they were covered with net.

Many growers have said it was always a matter of time before this kind of storm happened. Now one has happened, we can observe what went wrong with which structures, and use this information to make informed decisions about how to go about protecting orchards in the future, knowing what can happen in a "big" storm.

Lessons learnt

Firstly, pitched netting universally fared better than flat structures. There are a number of instances where old blocks of pitch netting were unaffected, whereas adjacent blocks of far newer flat netting were severely damaged. The only exception to this is one block where the angle of the pitch was not enough to allow the large quantity of hail to shed.

Blocks of flat netting behaved differently depending on a number of factors. The important observation though is that the weakest link in the system seemed to determine the level and nature of damage. Whether the net itself, anchors or cables went first seemed to have different consequences and cost or difficulty of repair.

Structures where cloth failed first, cables and anchors were relatively unaffected. Costs of repairing these structures will be less than those where the cloth held for longer and anchors and cables gave way as well, leaving the orchard in a tangle of netting, cables and poles.

The devastation caused where entire structures collapsed may prompt a re-evaluation of the way growers approach netting structures.

Financing of hail netting is likely to be more difficult in the future with insurance for hail netting now almost impossible to secure.

While many may view this event as a warning against those wishing to invest in protective structures, the event in fact showed up the differences in performance between differently designed netting structures under extreme conditions.

Some structures suffered damage but others in the same area were unaffected and some structures were damaged but others in the same area were unaffected.



It may be worthwhile for the industry to investigate some of the low cost hail protection systems in use in other parts of the world.

Using these observations will help growers to make better informed decisions about protecting their structures in the future.

For information contact Growcom Granite Belt Industry Development Officer Ray Palmer phone 07 3620 3844 email growchampions@growcom.com.au