

PipSure(NZ) *Safe food - kind on the environment*



Integrated Fruit Production for New Zealand Apples and Pears

PipSure(NZ) is the new name for the integrated fruit production programme for pomefruit in New Zealand. It is the production backbone of the New Zealand industry.

New Zealand's pipfruit pest and disease complement is largely introduced from the UK, Europe, Australia and the US, consequently, many of the natural enemies that keep these pests in check in the countries of origin are absent from NZ.

This places significant pressure on programmes designed to reduce pesticide input. It is a credit to NZ growers and their research partners that an integrated fruit production programme could be successfully introduced.

The programme was introduced in the 1996-97 season in response to market signals and expected regulatory impacts from key markets (EU and US). Introduction also followed a strong planning phase over the previous two years.

Implementation began as a phased introduction of an extensive Integrated Pest Management (IPM) programme in 88 orchards during the 1996-97 season (the New Zealand growing season extends from September to May). This developed into the present programme.

Uptake was rapid over the next 5 years (Figure 1) with 91% of growers undertaking the *PipSure(NZ)* programme and the remaining 9% of growers following a certified organic programme.

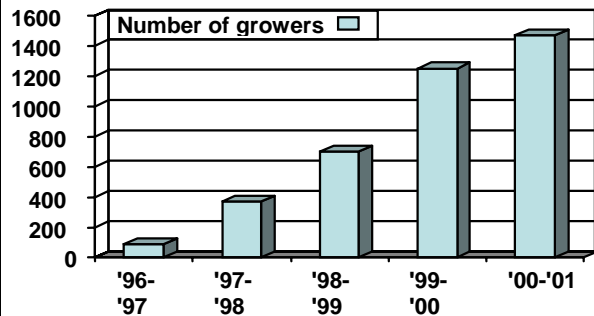


Figure 1: Rate of uptake of the *PipSure(NZ)* programme

All personnel applying agrichemicals to a pipfruit crop in New Zealand are required to have been trained in agrichemical handling and use. As a result of this they must hold current GROWSAFE™ certification indicating they have undergone training in a national education framework (NZ Qualifications Authority) approved training course.

NZ has one of the most stringent agrichemical registration and management legislations globally with product limitations being applied based on human, animal and ecological risk.

All plant protection products in the *PipSure(NZ)* export spray programme are registered products.

The products approved for use in the *PipSure(NZ)* programme have undergone extensive testing for suitability in the programme. They are 'soft' products with low mammalian toxicity, target specificity and as far as is possible, are environmentally benign. The products have patterns of use optimised for maximum effect on key targets, minimum

off target and beneficial organism effects and meeting international MRLs and phytosanitary restrictions. Much of the control of pests is dependent on biological control agents which reduce the need to spray and hence the need for pest-targeted, soft chemistries.

There has been remarkable uptake of selective soft chemistries that have almost completely eliminated broad spectrum insecticides from pipfruit programmes and the small amount remaining is for justified spot application where there are no other alternatives (Figure 2).

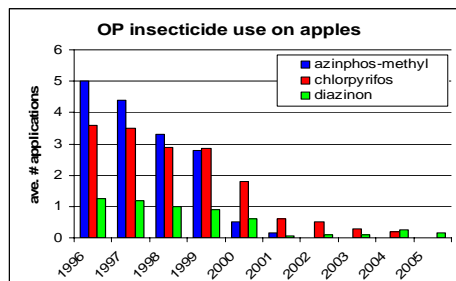


Figure 2: The demise of OP use under the *PipSure(NZ)* programme.

Crop protection product use has to be justified in the programme. Extensive use of monitoring and innovative predictive and warning technologies are employed. This has involved a significant commitment by the industry to develop such technologies and the mechanisms to up-skill producers in their effective use.

The target MRLs are the most *market stringent* and we routinely achieve results significantly less than 50% of target regulatory MRLs, typically in the nil detectable (ND) to 20% of regulatory MRL.

At least 50% of all samples tested are 'nil detectable' or below 10% of international Maximum Residue Levels.

99% of all samples tested are less than 50% of internationally set MRLs. This is a high quality result probably unequalled in a **national production programme** anywhere.

As far as possible, without compromising international phytosanitary requirements the *PipSure(NZ)* programme meets or exceeds several 'buyer' residue programmes in key markets.

NZ exports apples to over 60 countries.

We must be able to meet the phytosanitary requirements of these often diverse markets. Our *PipSure(NZ)* programme is designed to achieve an outcome where growers can submit fruit for any general market. We have externally audited programmes for some specific markets (Taiwan, USA FQP).

One of the strong features that differentiates NZ's apple and pear crop is that of traceability - from tree to retailer. In short, the history of the fruit is fully known when the carton is opened by the buyer overseas and can be traced through industry systems back to production site and any production and post harvest activities associated with the fruit's management.

Under *PipSure(NZ)* all production sites are traceable, inputs are traceable to the sub areas within production sites. Post harvest handling in packhouse and cool storage is traceable back to production site harvest bins and therefore sub areas within a production site. In the packhouse, production site is identified on carton end labels ensuring trace-back on individual cartons of fruit.

PipSure(NZ) - the New Zealand pomefruit production system you can have full confidence in!