

## A Plantsman's Perspective of our New Biosecurity Protocols "Introductions and Consequences"

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Horticulture in New Zealand spans back many hundreds of years. To be a success the plant growers had to import a number of plants to supplement the meager selection available at hand. Careful cultivation of the imported material was needed and highly skilled plant propagators maintained and selected cultivars over long periods of time.

Forward in time, perhaps 700 years, a new wave of importations have been made. The vast majority of these up to the present day providing food, shelter, and beauty to everyday life, enabling us to add the arts, crafts and culture that we need as a civilised society. The simple fact that we had totally transformed what had been until 1000 years ago, primeval forest with its unique multispecific habitats, into highly cultivated farm land with grasses, livestock, and timber trees, had largely gone unnoticed by most citizens. It is only of recent years ecology and all its connotations has been the thing to be "involved in", even politicians are vaguely aware of it. With all major experiments there are on one hand pitfalls, mistakes, failures, on the other hand successes both great and small. The lists we have to contend with are large on both sides of the story. Our climate dictates the results of actions taken, it involves each and every one of us, mainly as importers of new genetic material and secondly as citizens.

We should take a brief look at a few previous importations to see what results our actions have brought about, excluding but not forgetting animals. There are possibly 50 major weeds, possibly 100 lesser ones, a number of these were imported by choice to fulfil a purpose, i.e., gorse for hedges, *Tradescantia*, honeysuckle, flowering ginger (*Hedychium*) all ornamental. These main four perhaps, are the worst of a bad bunch and we can see that "ornamental" has a bad start. Many other weeds have come in as extras in wanted species, grass seed giving cover to many weeds introduced unintentionally.

On the other hand success with kiwifruit *Actinidia xdeliciosa*, *Sandersonia*, and *Zantedeschia* are just three of many chance importations that make millions of export dollars annually.

It can be seen horticulture is first in line for unwanted species making the escape, although horticulture has also the widest chance for breakthroughs into new products, but for these things to happen input is a necessity. Plant breeders need as wide a gene pool as can be obtained. Much of this source is already in the country and should be maintained to the highest degree possible by private or public institutions, unfortunately both are failing dismally. There have always been major retrenchments in "parks" every few years or so when collections of plants are disposed of, only to be recollected and amassed by enlightened management at some later date. The same procedure goes for the nursery trade trying to make a dollar. The time is arriving at full speed when recollection will only be made at great expense or not at all as the original genetic source has disappeared. Species are being wiped out at a great rate; lose the species and you have lost the hybrids as well.

Formerly it was fairly simple to import seeds and plant material from most countries and costs were minimal, but to comply with new rules being laid down it becomes complicated and costly to say the least. Most suppliers will be unable to give information needed by the importer to satisfy the regulation standards. Though these changes have taken place, in general at a first glance, it is still fairly easy to obtain a wide range of seeds which are on the basic list. But for plant breeders and collectors interested in obtaining the unusual or undescribed species collected in the wild for evaluation there is the "too hard basket" which the authorities are still working on and it may take some years before the situation becomes clear!

New Zealand plant breeders are a "maverick" lot. They wander the world looking at plants, most of the time taking opportunities as they come for plant swapping, seed swapping, extending their understanding of the plant kingdom to the limit. Few if any are millionaires. That there is now legislation in the pipeline that will certainly curtail their activities will be New Zealand's loss.