



Tolsma sells their 100th CLIMATE CONTROL SOLUTION IN AUSTRALIA

In honour of Frank Rovers purchasing the 100th Climate Control Unit from Tolsma, we took the time to sit down with him and discuss his experience in the potato industry, along with his reasons for choosing a Tolsma Climate Control System.

(From L-R) Allen Greenhalgh, Maarten van Delden, Frank Rovers

Frank was raised on his family's dairy farm in Victoria's South East. He says that growing up on a dairy farm was incentive enough to find another vocation, and at the age of 17 he found his calling when working for his neighbour growing potatoes. Fascinated with the art of growing and storing potatoes, Frank has never looked back, continually implementing new efficiencies into his business model.

Frank was introduced to Tolsma in 2006 at Potatoes Europe when he joined a Tolsma presentation on storage of potatoes. Despite it all being in Dutch, he found the graphical information on the slides of great interest. The presentation explained how weight loss could be managed by controlling the moisture difference between the product, mechanical cooling, and external air. Introducing fresh air into the store to cool was a completely new concept, and something Australian Farmers were not doing at the time. This information also led to the conversation around CO₂ in the store and the affect it has on processing & seed potatoes.

Frank went on to explain to us what he gained from the

presentation and was very clear on the benefits.

"In particular the Mollier diagram, which very clearly shows the moisture difference between warm and cold air. This helped explain how the crop incurs weight loss and how to limit it. It is simple science really, but until it is presented to you in a way that hurts your pocket, you don't take any notice of it. In Australia, it was always just accepted that if you stored product over a period of time, there was quite a bit of weight loss involved. But we have since realised, that doesn't have to be the case, and storing well puts extra money in your pocket when you sell. If you can get extra product to market and reduce wastage, why wouldn't you".

"I'll take an extra 5 or 10% revenue any day".

Tolsma Climate Control Systems are specifically designed for long-term storage of vegetables. Different vegetables require specific storage conditions such as air speed, airflow, temperature, CO₂ and humidity. The Tolsma Systems use numerous internal and external sensors in conjunction with product sensors to limit product shock and gently dry or cool, while minimising temperature differentials and issues around condensation.

Frank, you have worked hard throughout your career to increase efficiencies and productivity. When was it that you began to think beyond the growing season and pay closer attention to improved storage conditions?

"The demand for stored potatoes through to September/October increased in the late 90's and early 2000's. When storing longer during this period, we soon realised that what went in

was not the same on the way out, and it got to a critical point where we had to reduce weight loss. We always sent seed off to cool stores, which were designed as apple stores and not the best storage solution. We had a particularly bad experience with black heart, which is a result of high CO₂ in the store, and we became very aware of the need to flush out CO₂.”

Frank, what are the benefits of the information that the Tolsma sensors provide?

“The biggest learning experience was the amount of heat that the potatoes produce, particularly just after harvest. The use of the product temperature probes provides an accurate understanding of how the potatoes are behaving, rather than simply relying on a room temperature gauge, which can fluctuate every time you open the door. The product is what we are storing, not the room, that is why it is important to understand product behaviour by inserting the temperature sensors in the product.

Secondly, when we harvest in particularly wet conditions, the system allows you to dry in store by calculating internal and external moisture differentials. The added benefit of this, is significantly less product movement, saving both time and money”.

- All the seed is at the same stage, with the same vigour and this transfers to emergence.
- From the start of emergence, to what I consider full emergence is under a week. Prior to that you could have spuds coming up after 3 weeks due to different physiological age, resulting from the poor storage conditions
- Far more stems, so a better tuber set
- Far better and more uniform sample. We now have minimal issue with oversize produce, it simply does not exist for the most part”.

Given this, do you think a Tolsma store is value for money?

“There are two main returns on investment with a system of this kind.

1. Weight loss. In the past we would weigh our bins in and out of the store. It wasn't unusual to lose the top board on a four board bin, which is 25%”. With the Tolsma system, weight loss is somewhere between the 3-4% mark. You do the maths, losing a quarter of your product is a massive cost.
2. Uniform size, you end up with less wastage and a higher marketable yield. Much less over size and under size, which is another significant return on the investment”.

Companies only pay what they have to, regardless of the cost of production. Therefore, you need to be above the average to continue moving forward. “To be above the average, you have to do above average things by progressing in all areas of production”.

Frank where do you see the Tolsma solution being beneficial in the Australian market?

“For me, good storage offers two things :

- Flexibility around harvest because you know your



QCC Unit

product will keep well in your store

“You can harvest when you want, not because you have to”.

- Opportunity to market your produce over a broader range of time. This gives you more flexibility as to when you sell because you have the confidence that they will keep well”.

Any final advice for our readers Frank?

“People are always going to want potatoes; grower should always go with the technology to increase production efficiency”



Vision control

Over your many years of experience with Tolsma systems, can you discuss the benefits of a Tolsma store?

“Obviously, huge reductions in weight loss. In terms of seed :



(From L-R) Frank Rovers, CEO Dim-Jan de Visser

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