



# ARECO

CASE STUDY  
ARECO NEBULIZATION TRIAL  
AT IGA MT BARKER

Unit 12, 12 Homepride Ave  
Warwick Farm, Sydney,  
NSW, 2170  
02 9602 2939  
[www.areco.fr/en](http://www.areco.fr/en)



## RESULTS OF NEBULIZATION TRIAL AT IGA MT BARKER

### CONTEXT

South Australian Independent Retailers (SAIR) and IGA board member as well as a sustainability committee member Joanne Elson, became the first IGA store owner to trial an ARECO nebulization system in Mt Barker to implement better waste management practices. This decision came after the release of the 2021-2025 SAIR Food Waste and Recycling Strategy and thus aligns with national and state resource recovery & waste management goals.

### OBJECTIVES

A trial was carried out between the 7th of October 2021 to the 7th of December 2021.

The aim of the trial was to obtain information on:

- The impact of nebulization on the conservation of fresh products
- The impact of nebulization on labour
- The impact of nebulization on sales
- The impact of nebulization on plastic usage

### RESULTS

#### Fresh produce conservation

Following the installation of a nebulization system:

- IGA Mt Barker is on average saving around 2 kg per day of waste, or approximately 3,640 AUD per year.
- Fresh produce have an extended average shelf life of 1.5 days.

#### Labour

Following the installation of a nebulization system, IGA Mt Barker is saving an average of 4.5 hours per week on wages or approximately 7,220 AUD per year.

#### Sales

Looking at the store mix and margin, IGA Mt Barker have seen a lift of 0.76% in store mix and 2.5% in gross profit since nebulization was introduced.

#### Plastic reduction

Following the installation of a nebulization system, IGA Mt Barker introduced a range of potted herbs rather than pre-packed herbs, introduced bulk beans rather than pre-packed beans. IGA Mt Barker was also able to remove plastic packaging on all cos lettuces and corn.

### ARECO NEBULIZATION

ARECO nebulization is the diffusion of a fine dry fog that humidifies and allows fruits and vegetables to naturally absorb water without wetting them.

### Proven benefits

- Extends product lifecycle between 1 to 4 days
- Reduces and helps maintain temperature
- Reduces breakage up to 50%
- Provides adequate humidity levels to best preserve products (up to 90%)
- Preserves the organoleptic qualities of fresh produce



*"Since installing the nebulization system in our Fruit and Veg Cabinet, we have seen a positive result in store. Previously we would remove all our bunch lines and fragile stock each night from the cabinet and reset the following morning. Since installing the nebulizer, we have stopped doing this, as the stock remains fresher for longer. Customers love the look of the system, and the stock looks fresh all the time."*

Joanne Elson - IGA Mt Barker's owner and IGA board member.



# IGA Mt Barker

## AN INTRODUCTION

South Australian Independent Retailers (SAIR) and IGA board member as well as a sustainability committee member Joanne Elson, became the first IGA store owner to trial an ARECO nebulization system in Mt Barker to implement better waste management practices.

This decision follows the release of the 2021-2025 SAIR Food Waste and Recycling Strategy and thus aligns with the national and state resource recovery & waste management goals. Joanne's decision to roll out a waste initiative also aligns with South Australia's effort to lead the way nationally with its effort to reduce plastic usage and ban single-use plastic starting from March 2021.

Finalist of the 2021 IGA National Awards of Excellence for Fresh Produce Department of the Year, Joanne and her team were also looking for ways to go above and beyond to provide standout offerings and to offer a unique shopping experience for their customers.

Joanne's main motivations for trialing an Areco nebulization system were to reduce plastic waste while saving on labour and increasing store attractiveness.





# ARECO NEBULIZATION

## AN INTRODUCTION

ARECO nebulization is the diffusion of a fine dry fog that humidifies and allows fruits and vegetables to naturally absorb water without wetting them. It is composed of fresh air and pure water and is used to preserve fresh products while reducing food waste and the need for plastic packaging. This fine fog spreads over fresh products, forming a cool, moist layer above and around them boosting relative humidity and preventing moisture loss.



# PROVEN RESULTS

## OF ARECO'S SOLUTIONS ACROSS FRUIT AND VEGETABLE DEPARTMENTS



Extends product lifecycle between **1 to 4 days**



Provides adequate humidity levels to best preserve products



Temperature reduction of **6°C** of the core temperature of the products



Reduces breakage **up to 50%**



Preserves weight of the products



Maintains the quality and the appearance of products



Optimizes space usage for the store



Ends the needs for packing & wrapping of products



Improves the visual attractiveness of products



Saves labour time

ARECO's solutions are validated by professional organizations:





## TRIAL OBJECTIVE

The test trial was carried out between the 7th of October 2021 to the 7th of December 2021.

The aim of the trial was to obtain information on:

- The impact of nebulization on the conservation of fresh products
- The impact of nebulization on labour
- The impact of nebulization on sales
- The impact of nebulization on plastic usage



## TRIAL PROTOCOL

- The Areco nebulization system (OVD7) was installed on IGA Mt Barker's refrigerated case measuring 3.75 meters by 1.5 meters.
- The nebulization trial results were obtained comparing findings gathered prior to the installation of nebulization and information gathered over 2 months following the installation of the Areco nebulizer.
- The information collection was done by IGA Mt Barker's produce manager Mackie Wisethom who looked at the impact of nebulization on labour hours, conservation of fresh products, and plastic usage on a daily basis. Finally, data regarding the impact of nebulization on sales were gathered by the store owner Joanne Elson.





## TRIAL RESULTS



### · The impact of nebulization on the conservation of fresh products

Following the installation of a nebulization system:

- IGA Mt Barker is on average saving around 2 kg per day of waste, or approximately 3,640 AUD per year.
- Fresh produce have an extended average shelf life of 1.5 days with nebulization being most effective in preserving the leafy line, lettuces, broccolini, and open potted herbs.

### · The impact of nebulization on labour

Following the installation of a nebulization system: IGA Mt Barker is saving an average of 4.5hrs per week on wages, or approximately 7,220 AUD per year. Nebulization reduces the need for manually watering products throughout the day. Nebulization also eliminated the need to repack produce in cold rooms at night.

### · The impact of nebulization on sales

Looking at the store mix and margin, IGA Mt Barker have seen a lift of 0.76% in store mix and 2.5% in gross profit since nebulization was introduced.

*“Overall, the system looks good, I am getting more dollars through my tills with less waste and less plastics.”* Joanne Elson – Store owner.

### · The impact of nebulization on plastic usage

*“With the help of nebulization we are in the process of educating our customers to shop plastic-free. We introduced a range of potted herbs rather than the pre-packed herbs we were selling, and this has been a huge success plus supporting a local producer. Unwrapped whole lettuce rather than plastic-wrapped, bunch lines are moving better, bulk beans rather than pre-packed and the list goes on.”* Joanne Elson – Store owner.

IGA Mt Barker was also able to remove plastic packaging on all cos lettuces and corn.



## TESTIMONIAL



“

*Since installing the nebulizing system in our Fruit and Veg Cabinet, we have seen a positive result in store. Previously we would remove all our bunch lines and fragile stock each night from the cabinet and reset the following morning. Since installing the nebulizer, we have stopped doing this, as the stock remains fresher for longer. Customers love the look of the system, and the stock looks fresh all the time.”* Joanne Elson – Store owner

”

*\*Disclaimer: This testimonial was voluntarily provided. No payment, nor free products/services, or any compensation or benefits were provided in exchange for said statement.\**