Removing ethylene gas is the vital ingredient to keeping fruit and vegetables fresh for longer.

#### **Ethylene Gas - What is it?**

All fruit and vegetables have a hormone called ethylene, which is responsible for the ageing and ripening process. It is released as a gas by fruit and vegetables as the produce is maturing.

Exposure of fruit and vegetables to even small amounts of this ethylene gas will cause accelerated ripening and decay.

#### Refrigerators are an ethylene trap

Domestic refrigerators are not an ideal storage environment for fresh produce. Not only is it difficult to ensure adequate humidity levels for your produce, but the enclosed space and limited airflow of your refrigerator create an ethylene trap that allows ethylene gas to build up. Whilst this build up of ethylene is not harmful to people, it is deadly to your fresh produce.

University researchers in Australia recently tested domestic refrigerators and found that more than 80% had ethylene at levels that were damaging to fresh produce, causing up to a 50% loss in fresh storage life.

#### **Proven Effectiveness with ExtraFresh®**

ExtraFresh® has been tested by independent university researchers and has been shown to remove up to 99% of ethylene gas from a storage environment.

Produce storage trials using ExtraFresh® have shown that fresh storage life has been extended by up to 190%.

#### ExtraFresh® has many years of proven performance.

ExtraFresh® has been used as a commercial product in the fruit and vegetable industry throughout the world for more than 10 years. It has a proven track record of keeping fruit and vegetables fresh and is now available for you to use at home.

### How does ExtraFresh® work?

ExtraFresh® removes ethylene gas, eliminating it from your crisper bin and thereby stopping any harmful impact that the ethylene gas can have on your fresh produce in storage.

## Is ExtraFresh® easy to use?

ExtraFresh® is simple, safe and convenient to use. Just place your ExtraFresh® cartridge in your crisper bin and your produce will stay fresh and full of life until you are ready to eat it.

# PDo I open the sachet inside my ExtraFresh® cartridge?

NO. There is no need to open the ExtraFresh® sachet that is inside your disc. ExtraFresh® is designed to work effectively with the special ExtraFresh® granules permanently enclosed in the sachet. The sachet is made from a special material that allows vapors to move freely through, yet it will protect the ExtraFresh® granules from excessive moisture damage.

## How long does ExtraFresh® last?

ExtraFresh® will last for about 3 months (12 weeks) in your refrigerator crisper bin. At the end of 12 weeks, you can simply replace the unit. It is safe to discard your old disc with the normal rubbish.

# How long will ExtraFresh® last if I do not open it?

An unopened ExtraFresh® cartridge package has an indefinite shelf life until it is removed from its protective packaging. Unlike other products on the market, our packaging is completely sealed so that it IS NOT activated until you open the packaging. The packaging of ExtraFresh® cartridges is designed to protect the product against ethylene gas in the environment and so will not deteriorate unless the packaging is damaged or opened.

## Do I need an ExtraFresh® cartridge for each bin?

Yes. We recommend using an ExtraFresh® disc for each crisper bin if you have 2 crisper bins. However, if you separate your fruit & vegetables place the disc within your fruit draw!

# Will ExtraFresh® work on the refrigerator shelf?

Yes, in addition to being able to absorb the ethylene from within your refrigerator it will also absorb odors from meat & fish foods. Some larger produce items (eg: melons) are often stored on the shelves. Placing an ExtraFresh® disc beside these items on your refrigerator shelf will help this produce to stay fresh for longer.

## Will ExtraFresh® absorb odors?

ExtraFresh® is designed to remove ethylene gas and odors from within your refrigerator.

# Poes ExtraFresh® keep Meat and milk products fresh also?

Yes. ExtraFresh® is designed to kill bacteria within refrigerator so it will help to extend the shelf life of meat & fish. However, it will have no impact on your milk products.

# Phow long will my fruits and vegetables stay fresh with ExtraFresh®?

ExtraFresh® can keep your produce fresh for up to 6 weeks longer in your refrigerator however, it is important to understand that each variety of fruit or vegetable has its own storage life in the refrigerator which impacts the duration that you can store each product. For example, you can expect to get an additional 7-10 days for an iceberg lettuce, whilst with a tomato you can expect to get an additional 2-4 weeks of fresh storage life. It is all a function of their own perish ability and how sensitive they are to ethylene damage. If a fruit or vegetable grows a fuzzy mould or becomes mushy in one spot, the decay is probably due to mould or bacteria rather than ethylene damage. It is important to be sure that temperature, humidity and ethylene are controlled in the refrigerator to receive the maximum benefits of ExtraFresh®.

## Will ExtraFresh® work in my fruit bowl?

Placing ExtraFresh® in a fruit bowl that is on a counter will provide some benefit however; the benefit is not as substantial as it is in your crisper bin. This is because, unlike the confined space of the refrigerator, the volume of air circulating around a fruit bowl is too large for ExtraFresh® to efficiently control the ethylene. Placing ExtraFresh® in a covered potato or onion bin will help to prevent sprouting in the potatoes and onions.

## Poes ExtraFresh® work on all fresh produce products?

All fruit, vegetables and herbs will benefit from ExtraFresh® in their storage environment. Some fruit products which are artificially ripened with high concentrations of ethylene gas before they are sold (such as bananas, stone fruit, avocadoes and tomatoes) will experience reduced benefits. Once a fruit has been exposed to very high concentrations of ethylene, the fruit enters a phase, which causes their internal production of ethylene to become very high. Once this happens, it is then impossible to stop the ripening process from following a rapid course. This is why bananas are always so difficult to keep, as they are often force ripened by retailers and wholesalers before they are sold.

# Should I still use plastic bags when storing my produce?

Yes, we recommend that plastic bags are used when storing most vegetables and fruits in the refrigerator, particularly for those that do not have a hard skin of their own and leafy greens. The bags will prevent moisture loss, which can make your produce go soft and limp. You can use the bags provided by your grocery store. The bags should never be tightly sealed. They should be left open or loosely tied at the ends.

## Phow does ExtraFresh® work if my produce is in plastic bags?

The plastic bags that grocery stores provide are made of polyethylene, which is not a strong barrier to ethylene so ExtraFresh® can still easily access the ethylene gas being produced.

### Has ExtraFresh® been tested?

Universities in Australia, Europe and the USA have tested ExtraFresh® granules and found that they will removed up to 99% of ethylene from the storage environment. ExtraFresh® granules have also been used in storage tests where there was on average a 60% increase in fresh storage life across 23 lines of produce tested. ExtraFresh® granules have an international patent to protect their unique technology and are widely used commercial in wholesale markets across the world.

## Can you smell ethylene gas?

No. Ethylene is colorless and mostly odorless however, you can sometimes detect a sweet smell at high concentrations. It is not harmful to humans or animals and does not affect meat poultry or non-plant foods.

# Poes ExtraFresh® give off any odor?

No, ExtraFresh® granules have no odor.

## Is ExtraFresh® safe for use around children?

ExtraFresh® is completely safe and non-toxic and it has no volatile components. It is not an EPA waste hazard and you can discard it with your regular rubbish. The ExtraFresh® granules inside the sachet are not for human consumption. They can be irritating to body tissue and may temporarily stain tissue upon contact. The sachet containing your ExtraFresh® granules is designed so that it does not need to be opened and so there is no need for contact. If it is opened and there is eye contact, immediately flush with water. If ingested, drink several glasses of water or milk and then seek medical attention for safety.

### Which fruits and vegetables produce the most ethylene?

As a general rule, fruits give off more ethylene than vegetables whilst vegetables are more sensitive to the effects of ethylene.