

www.keep-it-fresh.com

# Shelf life Extension



# 5x

## Life Extension



KIF Curtains



KIF Paper & Chips



KIF Sachet & Cassettes



KIF Plastic Films



• FDA Compliant • Recyclable • Made from Natural Materials



+1 312 957 5800,

Increase your produce life!

Farnam Petroleum Asia +98 21 8805 7528

info@keep-it-fresh.com



## KIF Sachets

for Boxes



90% fresh produce is packed inside corrugated boxes only using KIF sachets and are usually 5 gm in weight.

## KIF Films

all applications



KIF bags are universally used to pack all fruits and vegetables and are available in custom sizes and printing.

## KIF Cassettes

for Refrigerators



Cassettes are used inside refrigerator or a small cooling area where produces are stored and last for 3 months

## KIF Papers & Chips



Paper sheets and Small chips are used in bulk boxes or retail boxes usually on the top of the box. The paper should cover at least 50% of the top surface area

## KIF Curtains

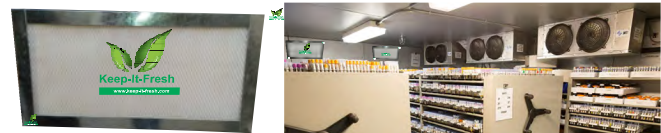
for reefer containers



Curtains are used for one or multiple trips in reefer containers. Usually 2-3 curtains are used for 1 trip of 7-14 days haulage period.

## KIF Filters

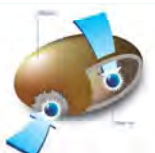
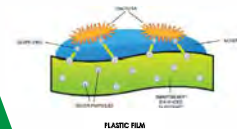
for cold storages



Filters are made of metal with lined ethylene absorbant paper and fabric in Cold Storage rooms. 3 Filter to be used in each chamber that stores 100 MT of fresh produce and has to be replaced after 45 days

## VBI TECHNOLOGY

- Volatile bacterial Inhibition
- Lower vapor pressure anti bacterial additives vaporize in packaging
- Forms anti bacterial environment not just on film surface but also around



- Bacteria deposits on plastic film with moisture
- Cell Membrane is de-stabilized
- Respiration is prohibited
- Food nutrition intake is impeded
- Cell Division is inhibited



# COMPARISON



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7 day trial in open condition | Temp Day - 29 degrees | Temp Night - 15 degrees | Humidity - 70-85% rH

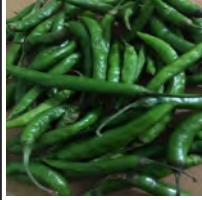
## KIF Pouch Without KIF

Strawberries



## KIF Plastic Without KIF

Green Chilies



## KIF Paper Without KIF

Oranges



## KIF Plastic Without KIF

Papaya



## KIF Plastic Without KIF

Okra / Bhindi



## KIF Plastic Without KIF

Mint Leaves



## KIF Pouch Without KIF

Bananas



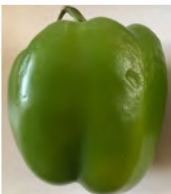
## KIF Paper Without KIF

Tomatoes



## KIF Paper Without KIF

Capsicum



## KIF Plastic Without KIF

Mangoes




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# MANUFACTURING PLANTS

## GLOBAL SITES

 125,000 sq ft

California, USA



 35,000 sq ft

Australia



 50,000 sq ft

Lyon, France



 40,000 sq ft


Dubai



 100,000 sq ft

Italy



 85,000 sq ft

Germany



American Technology



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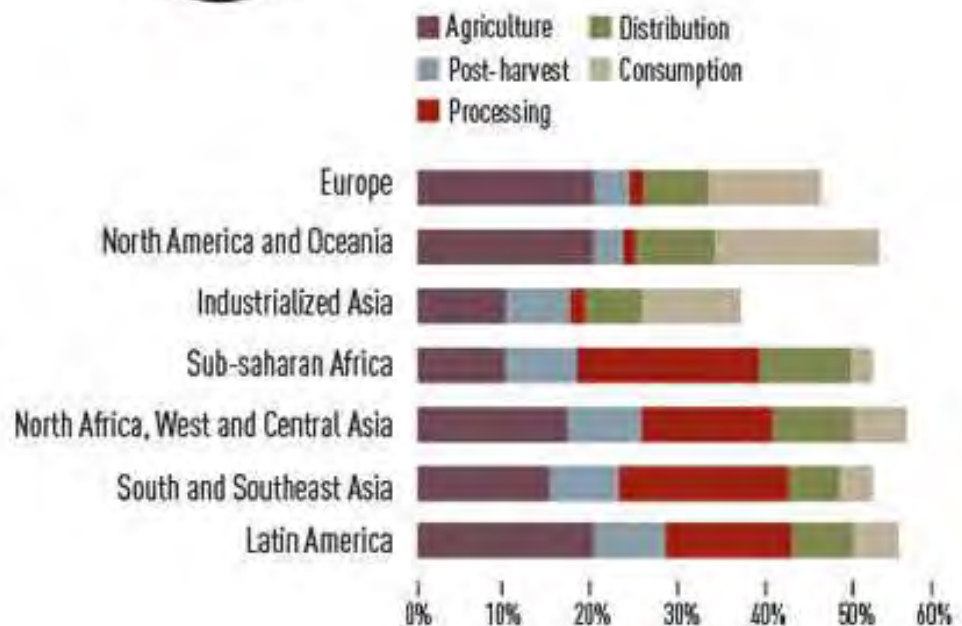
# 45%

## FRUIT & VEGETABLES FOOD LOSSES

Along with roots and tubers, fruit and vegetables have the highest wastage rates of any food products; almost half of all the fruit and vegetables produced are wasted.



3.7 trillion apples





# The PRODUCTS

# 10X

10X Life Extension

FDA Compliant

Recyclable

Made from Natural Materials



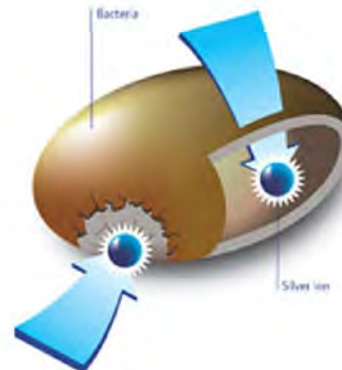
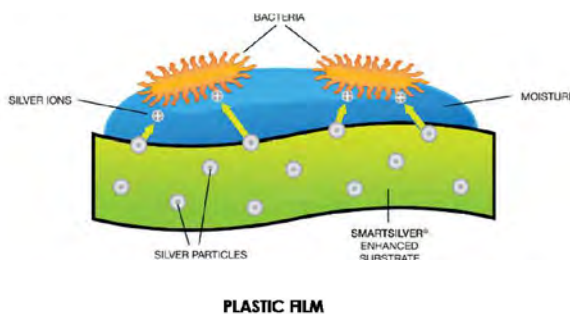
## VBI Technology



1. Volatile Bacterial Inhibition
2. Lower vapor pressure anti bacterial additives vaporize in packaging
3. Forms anti bacterial environment not just on film surface but also around



- Ethylene is a gas naturally produced by fruit as it ripens
- Ethylene works as an accelerator to the ripening process
  - Ethylene increases ripening exponentially
- Ethylene adsorbers reduce the ripening rate by adsorbing the ethylene molecules.
- Ethylene molecules form a bond with the keep-it-fresh additives and are trapped



- Bacteria deposits on plastic film with moisture
  - Cell Membrane is de-stabilized
  - Respiration is prohibited
- Food nutrition intake is impeded
  - Cell Division is inhibited





## Product

KIF FILTERS are used primarily in cold storages to absorb the ethylene gas inside the cold chambers. The long duration of storage can cause excessive accumulation of ethylene inside the chamber.

This can accelerate the process of ripening of fruits and vegetables causing early decay of the produce. The ethylene production from fruits and vegetables can hamper the freshness at the time the produce is ready to be despatched.

## Installation

KIF Filters is the most innovative technology and has patents applied for in many parts of the world. The product is placed near the intake air flow of the reefer container and on the sides.

## Dosage

A recommended dosage of 3 filters inside 100 MT chamber are required and to be replaced after 45 days

It is safe to use, easy to install with the rivets in corners and friendly to dispose as it is made from eco friendly substances.



**FILTERS to be placed near Intake Air Flow**



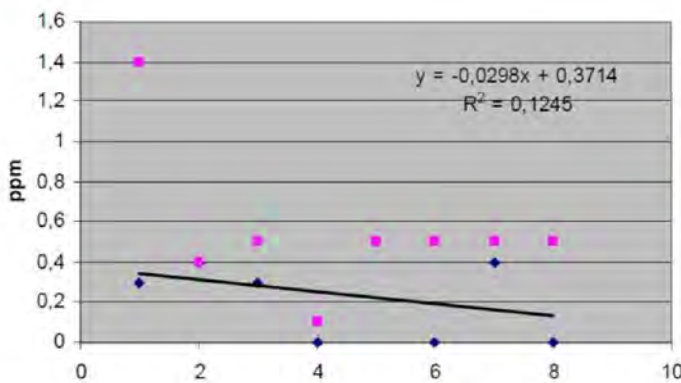




## ETHYLENE LEVELS BEFORE & AFTER IN HUMID CHAMBER

Reduction due to dehydration, decay and over-ripening within the humid-environment chamber (2-4°C)

Ethylene levels in the humid-environment chamber



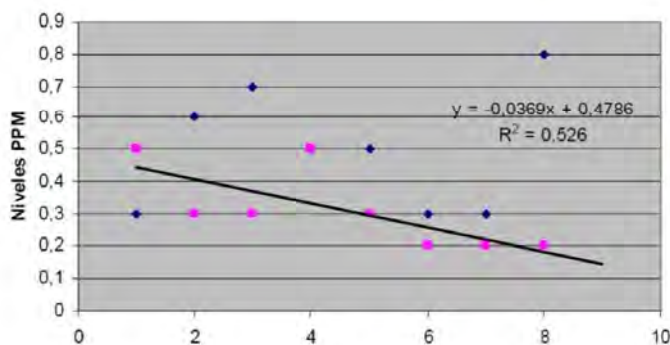
	Chamber without ethylene control	Chamber with ethylene control
Curly endive	80%	20%
Peach	21.6%	16.2%
Cucumber	22.7%	13.6%
Plum	12.8%	8.5%



## ETHYLENE LEVELS BEFORE & AFTER IN DRY CHAMBER

Reduction due to dehydration, decay and over-ripening within the dry-environment chamber (8-12°C)

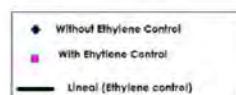
Ethylene levels in the dry-environment chamber

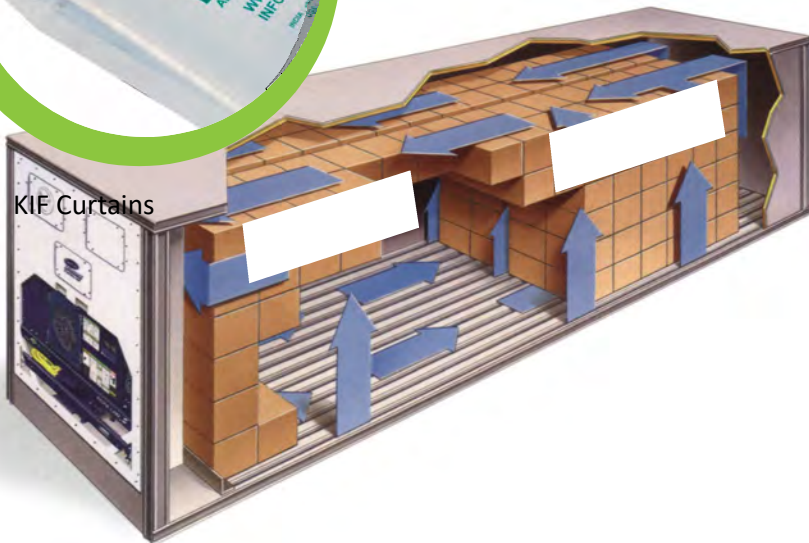


	Chamber without ethylene control In place for 3-8 days	Chamber with ethylene control In place for 3-8 days
Tomato	32%	12%

Reduction due to dehydration, decay and over-ripening within the dry-environment chamber (8-12°C)

	Chamber without ethylene control In place for 3-8 days	Chamber with ethylene control In place for 3-8 days
Mango	20%	0%





## Product

KIF Curtains are used primarily in reefer containers to absorb the ethylene gas inside the container. The long haulage during transit can cause excessive accumulation of ethylene inside the container.

This can accelerate the process of ripening of fruits and vegetables causing early decay of the produce. The ethylene production from fruits and vegetable can hamper the freshness at the time the produce reaches the destination.

## Installation

KIF Curtains is the most innovation technology and has patents applied for in many parts of the world. The product is placed near the intake air flow of the reefer container and on the sides.

## Dosage

A recommended dosage of 2-4 curtains based on the type of vegetables or fruits being shipped is recommended for one time use. It is safe to use, easy to install with the rivets in corners and friendly to dispose as it is made from eco friendly substances.



# KIF SACHETS



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## Product

Fresh Vegetables, Fruits & Flowers start to ripen after harvesting and during the ripening process release ethylene gas and water vapour. This ethylene gas when in the package increases the ripening rate of the fresh produce hence aggravating the ripening process resulting into faster rotting of the fresh produce.

The ethylene gas and water vapour produced work as catalyst to the ripening process which in turn causes faster spoilage and microbial damage.

Keep It fresh Sachets can be easily placed with fresh fruits, vegetables and flowers. The sachets work in a multiple ways to protect and extend shelf life of fresh produce.

## How it works

1. Absorption of Ethylene – The ethylene produced by the fresh produce is absorbed by the special minerals in the sachet that selectively absorb ethylene molecules.
2. Oxidation of Ethylene – The Ethylene is attracted towards the media in the sachet and gets oxidized to water and carbon dioxide.
3. Absorption of moisture – The excessive moisture produced within the package is also absorbed which in turn inhibits microbial growth within the package.
4. VBI – The option of having a Natural Vaporising Bio Inhibitor is available with these sachets. The active ingredient is a natural plant extract, which has the capability to inhibit microbial growth in its presence.

Size	5gram	10 gram	15 gram
•	Eliminate decay, mould, discoloration, wilting, softening, scald, loss of crunch and many other negative effects caused by ethylene gas.		
•	Use during postharvest handling to slow down the ripening process of fruits, vegetables and flowers.		
•	Use during domestic and international shipments moving via ocean, truck, rail and air.		
•	Non toxic, chemically inert and can be disposed of as normal waste.		

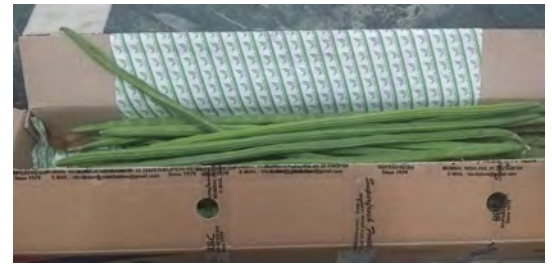


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KIF Paper  
& Chips



## Product

Fresh Vegetables, Fruits & Flowers start to ripen after harvesting and during the ripening process release ethylene gas and water vapour. This ethylene gas when in the package increases the ripening rate of the fresh produce hence aggravating the ripening process resulting into faster rotting of the fresh produce.

The ethylene gas and water vapour produced work as catalyst to the ripening process which in turn causes faster spoilage and microbial damage.

Keep It fresh Paper can be easily placed with fresh fruits, vegetables and flowers in trays and boxes or can be used for wrapping. The sachets work in a multiple ways to protect and extend shelf life of fresh produce.



## How it works

1. Absorption of Ethylene – The ethylene produced by the fresh produce is absorbed by the special minerals in the sachet that selectively absorb ethylene molecules.
2. Oxidation of Ethylene – The Ethylene is attracted towards the media in the sachet and gets oxidized to water and carbon dioxide.
3. Absorption of moisture – The excessive moisture produced within the package is also absorbed which in turn inhibits microbial growth within the package.
4. VBI – The option of having a Natural Vaporising Bio Inhibitor is available with these sachets. The active ingredient is a natural plant extract, which has the capability to inhibit microbial growth in its presence.

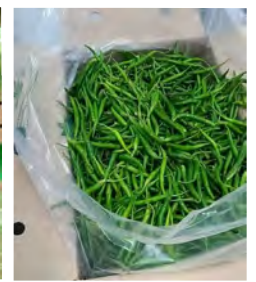
## Application

Simply place the paper over produce packed in conventional corrugated boxes or export packing. KIF Paper absorbs ethylene gas from the pack and create a bacteria free environment to extend the shelf life of packed fresh fruit and vegetables. This would depend upon the kind of fresh produce and the quantity of ethylene produced





## KIF Plastic Films



### Product

KEEP-IT-FRESH films and bags contains Special properties of shelf life enhancement of fresh and vegetables from 40% to 400%.

Fresh Vegetables and Fruits start to ripen after harvesting and during the ripening process, the fruits and vegetables release ethylene gas.

This ethylene gas in the package increases the ripening rate of the fresh produce hence aggravating the ripening process resulting into faster rotting of the fresh produce. The ethylene gas produced works as a auto catalyst for ripening which in turn produces higher sugar levels causing microbial spoilage of the fruits.

The plastic articles produced by using KEEP-IT-FRESH absorb the harmful ethylene gas Produced hence slowing the ripening and rotting process and increasing the shelf life of the Packed produce.

The film produces shows upto 5 times increases in the shelf life of bananas kept without packaging and improves the shelf life of tomatoes by upto 3 times.

Tests performed on various fresh fruits and vegetables shows that the produce kept in open started to rot in 3-5 days where as the ones in the KEEP-IT-FRESH bags were good even on the 10th day compared to the ones in generic plastic bag.

### How it works

1.Absorption of Ethylene – The ethylene produced by the fresh produce is absorbed by the special minerals in the sachet that selectively absorb ethylene molecules.

2.Oxidation of Ethylene – The Ethylene is attracted towards the media in the sachet and gets oxidized to water and carbon dioxide.

3.Absorption of moisture – The excessive moisture produced within the package is also absorbed which in turn inhibits microbial growth within the package.

4.VBI – The option of having a Natural Vaporising Bio Inhibitor is available with these sachets. The active ingredient is a natural plant extract, which has the capability to inhibit microbial growth in its presence.

5. The film has special macro and micro pores to allow breath ability of moisture and the anti fog properties do not allow the mist to settle in the packaged films.

### Application

Simply pack the produce in the right sized bag in conventional way. KIF modified atmosphere packaging create a balance atmosphere inside bag and extends the shelf life of packed fresh fruit and vegetables. This would

Ethylene Absorbers  
Micro & macro pores





# TEST REPORTS



# SPINACH TEST





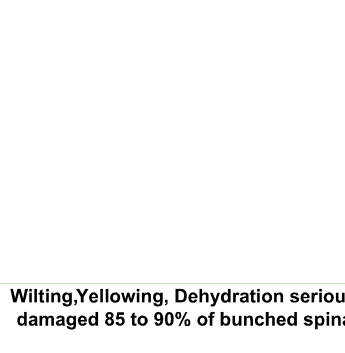



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CONTROL	KIF BAG
	
<p>BUNCHED SPINACH IN CONTROLLED PACKING AT AMBIENT CONDITIONS. PICTURE CLICKED AFTER 48 HOURS</p>	<p>BUNCHED SPINACH PACKED IN KIF BAG AT AMBIENT CONDITIONS. PICTURE CLICKED AFTER 48 HOURS</p>

## KIF BAGS FOR SPINACH

- Ensures the prolonged storage and shelf life by providing a combined effect of modified atmosphere i.e high CO<sub>2</sub> and low O<sub>2</sub>, modified humidity i.e 90- 95% and condensation control by release of excess moisture
- Eliminate excess moisture, thereby maintaining produce appearance and inhibiting decay
- Prevents shrivelling and preserves produce freshness
- Slows senescence, wilting and colour change processes
- Maintains the nutritional value and flavour, and inhibits the growth of pathogens thereby reducing decay



	CONTROL	KIF BAG		CONTROL	KIF BAG
<p>20/03/2018 at 5:30pm</p>	 <p>Fresh Green bunched spinach harvested at 11 am on 20.03.2018</p>	 <p>Fresh Green bunched spinach harvested at 11 am on 20.03.2018</p>	<p>21/03/2018 at 5:30pm</p>	 <p>Wilting, Yellowing, Dehydration seriously damaged 70% of bunched spinach</p>	 <p>Fresh, Uniformly Green (not yellowed), Fully Turgid, Fairly Clean, Free from serious damage</p>
<p>22/03/2018 at 5:30pm</p>	 <p>Wilting, Yellowing, Dehydration seriously damaged 85 to 90% of bunched spinach</p>	 <p>yellow-green colour, Wilting effected 25% of bunched spinach</p>			



# OKRA TEST



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CONTROL	KIF BAG
	
<p>OKRA IN CONTROLLED PACKING AT AMBIENT CONDITIONS. PICTURE CLICKED 7 DAY</p>	<p>OKRA PACKED IN KIF BAG AT AMBIENT CONDITIONS. PICTURE CLICKED 7 DAY</p>

### KIF BAGS FOR OKRA

- Ensures the prolonged storage and shelf life by providing a combined effect of modified atmosphere i.e high CO<sub>2</sub> and low O<sub>2</sub>, modified humidity i.e 90 -95% and condensation control by release of excess moisture
- Eliminate excess moisture, thereby maintaining produce appearance and inhibiting decay
- Prevents shrivelling and preserves produce firmness
- Slows senescence and ripening processes
- Maintains the nutritional value and flavour, and inhibits the growth of pathogens, thereby reducing decay

	CONTROL	KIF BAG		CONTROL	KIF BAG
20/03/2018			24/03/2018		
21/03/2018			25/03/2018		
22/03/2018			26/03/2018		
23/03/2018			27/03/2018		



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# MANGO TEST



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CONTROL	KIF BAG
MANGOES IN CONTROLLED PACKING AT AMBIENT CONDITIONS. PICTURE CLICKED ON 6 <sup>TH</sup> DAY	MANGOES PACKED IN KIF BAG AT AMBIENT CONDITIONS. PICTURE CLICKED ON 6 <sup>TH</sup> DAY

## KIF BAGS FOR MANGOES

- Ensures the prolonged storage and shelf life by proving a combined effect of modified atmosphere i.e high CO<sub>2</sub> and low O<sub>2</sub>, modified humidity i.e 90-95% and condensation control by release of excess moisture
- Eliminate excess moisture, thereby maintaining produce appearance and inhibiting decay
- Prevents change in produce colour, aroma and produce shape
- Prevents shrivelling and preserves produce firmness and freshness
- Eliminates soft nose and internal flesh break down possibilities
- Slows senescence and ripening processes
- Maintains the nutritional value and flavour, and inhibits the growth of pathogens, thereby reducing decay

	CONTROL	KIF BAG		CONTROL	KIF BAG
20/03/2018			21/03/2018		
22/03/2018			23/03/2018		
25/03/2018			26/03/2018		



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American Technology

# MANGO TEST



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## PURPOSE:

**Increasing the SHELF LIFE AND QUALITY** of Mangoes by use of KIF Sachets and Bags. Opportunity for both AIR and SEA Shipments.

## REQUIREMENTS:

- ✓ 1 cold room to simulate cold chain conditions of storage and transport of mangoes. We want to create same conditions as in transportation in cold chain.
- ✓ 30 carton boxes
- ✓ 10 cartons to be marked as BAG+Sachet
- ✓ 10 cartons to be marked as Control. (WITHOUT ANY SOLUTION)
- ✓ 10 cartons to be marked as Sachet

(You can increase in the number of cartons if you want to experiment over a larger lot quantity)

## PROCEDURE:

1. Place the CONTROL mangoes in the usual standard manner as the packing is being done regularly for your export shipments. Make 10 cartons. **Mark them CONTROL.**
2. Take KIF bag. Put the bag inside carton. Place the mangoes inside the polybag. Place the KIF Sachet along side the fruit as shown in 2<sup>nd</sup> image. Close the bag as shown. Make 10 such cartons (or more as required) **And mark the carton as BAG+Sachet**
3. Take 10 more cartons. Put only KIF Sachet on top as shown in image 2. Close the carton and **mark the carton as Sachet**



PUT MANGO INSIDE KIF BAG (IMAGE 1)

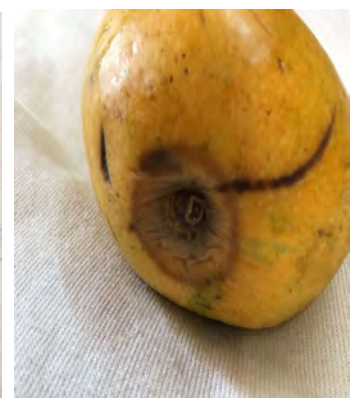
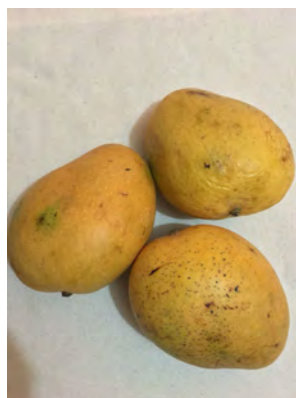


PUT 'KIF SACHET' OVER TOP (IMAGE 2)

**ENSURE TO TAKE PHOTOS OF THE CONDITION OF MANGOES AT THE TIME OF START OF EXPERIMENT. CHECK FRUIT PRESSURE, COLOUR AND RELATED PARAMETERS.**

## PARAMETERS TO OBSERVE

- (a) Monitor the quality of mangoes inside all 3 carton types as made above i.e. SACHET.
- (b) Open on 3<sup>rd</sup> day, 10<sup>th</sup> day, 15<sup>th</sup> day and soon till the time mangoes are in a condition to be used.
- (c) Take close view photos of the mangoes every time you open the cartons.
- (d) Check the condition of ripening, fruit pressure, texture and other quality parameters.
- (e) Compare the quality with and without KIF Protection.
- (f) Continue the test till the time the mangoes are not in a condition to be used. This will help in understanding whether KIF Protection can help in SEA Shipments or not.





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# GREEN CHILIES TEST



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CONTROL	KIF BAG
	
<p>GREEN CHILIES IN CONTROLLED PACKING AT AMBIENT CONDITIONS. PICTURE CLICKED ON 7<sup>TH</sup> DAY</p>	<p>CHILIES PACKED IN KIF BAG AT AMBIENT CONDITIONS. PICTURE CLICKED ON 7<sup>TH</sup> DAY</p>

## KIF BAGS FOR GREEN CHILIES

- Ensures the prolonged storage and shelf life by providing a combined effect of modified atmosphere i.e high CO<sub>2</sub> and low O<sub>2</sub>, modified humidity i.e 90-95% and condensation control by release of excess moisture
- Maintains the nutritional value and flavour, and inhibits the growth of pathogens, thereby reducing decay
- Eliminate excess moisture and maintaining produce appearance
- Prevents shrivelling, preserves produce firmness and freshness
- Slows senescence and ripening processes

	CONTROL	KIF BAG		CONTROL	KIF BAG
20/03/2018			24/03/2018		
21/03/2018			25/03/2018		
22/03/2018			26/03/2018		
23/03/2018			27/03/2018		





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# CORIANDER TEST









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CONTROL	KIF BAG
	
CORIANDER IN CONTROLLED PACKING AT AMBIENT CONDITIONS PICTURE CLICKED AFTER 48 HOURS	CORIANDER PACKED IN KIF BAG AT AMBIENT CONDITIONS. PICTURE CLICKED AFTER 48 HOURS

## KIF BAGS FOR CORIANDER

- Ensures the prolonged storage and shelf life by providing a combined effect modified atmosphere i.e high CO<sub>2</sub> and low O<sub>2</sub>, modified humidity i.e 90 -95% and condensation control by release of excess moisture
- Eliminate excess moisture, thereby maintaining produce appearance and inhibiting decay
- Prevents shrivelling and preserves produce firmness
- Slows senescence, wilting and colour change processes
- Maintains the nutritional value and flavour, and inhibits the growth of pathogens thereby reducing decay

	CONTROL	KIF BAG		CONTROL	KIF BAG
20/03/2018 at 5:30pm			21/03/2018 at 5:30pm		
	Fresh Green coriander harvested at 11 am on 20.03.2018	Fresh Green coriander harvested at 11 am on 20.03.2018		Wilted, Yellowing, Dehydrated effected 70% of coriander	Fresh, Uniformly Green (not yellow green), Fully Turgid, Fairly Clean, Free from serious damage
22/03/2018 at 5:30pm			23/03/2018 at 5:30pm		
	Wilted, Yellowing, Dehydrated seriously damaged 85 to 90% of coriander	yellowgreen colour, Wilted effected 10% of coriander		Wilted, Yellowing, Dehydrated seriously damaged 100% of coriander	yellowgreen colour, Wilted effected 40% of coriander




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# BANANA TEST



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CONTROL	KIF BAG
	
<p>BANANA IN CONTROLLED PACKING AT AMBIENT CONDITIONS. PICTURE CLICKED ON 6<sup>TH</sup> DAY</p>	<p>BANANA PACKED IN KIF BAG AT AMBIENT CONDITIONS. PICTURE CLICKED ON 6<sup>TH</sup> DAY</p>

## KIF BAGS FOR BANANA

- Ensures the prolonged storage and shelf life by proving a combined effect of modified atmosphere i.e high CO<sub>2</sub> and low O<sub>2</sub>, modified humidity i.e 90-95% and condensation control by release of excess moisture
- Maintains the nutritional value and flavour, and inhibits the growth of pathogens, thereby reducing decay
- Eliminate excess moisture, thereby maintaining produce appearance and inhibiting decay
- Delays ripening and ethylene production rates
- Sows senescence and preserves produce firmness

	CONTROL	KIF BAG		CONTROL	KIF BAG
20/03/2018			23/03/2018		
21/03/2018			24/03/2018		
22/03/2018			25/03/2018		



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## PURPOSE:

Extending the Shelf life of Papaya by the use of KIF filters and bags for retail supply chain.

## REQUIREMENTS:

- 30 Papaya packs
- 10 packs to be marked as KIF bags.
- 10 packs to be marked as Control.  
(SAME AS BEING DONE NOW)
- 10 packs to be marked as kif filters

PAPAYA PACKED IN K  
(PIC-1)

## PROCEDURE:

1. Place the CONTROL Papaya in the usual standard manner as the packing is being done regularly for your retail chambers. Make 10 packs. **Mark them "CONTROL"**.
2. Take 10 more packs. Put only one kif filter facing the layer of Papaya then close the bag and **mark the pack as "KIF filter"**.
3. Take 10 more pack sizes. Put them in kif bags then close the bag and **mark the pack as "KIF bags"**.

## PARAMETERS TO OBSERVE

- (a) Monitor the quality of papaya inside 3 pack types as made above i.e. CONTROL/KIF FILTERS/KIF BAGS.
- (b) Check the condition after every 24 hour and so on till the time papaya are in a condition to be used.
- (c) Take close view photos of the papaya every time you are monitoring results.
- (d) Check the condition of ripening, fruit pressure, texture and other quality parameters.
- (e) Compare the quality with and without KIF Protection.
- (f) Continue the test till the time the papaya are not in a condition to be used. This will help in understanding what changes KIF Protection is bringing in your produce.





## CONDITIONS FOR USING KIF

- KIF refers to series of shelf life extension solutions which eliminate Ethylene, VOCs and pathogens etc. which are responsible for early ripening and decay of produce.
- Usage of KIF does not mean that there will be no problem in the shipment or all the problems related to post harvest, packaging and shipment will be solved.
- KIF is an additional protection method which works very well if all the post harvest operations are carried out as per global norms.
- The temperature, humidity and packing conditions should be maintained at each stage of post-harvest to ensure KIF to work properly.
- Air circulation during storage and exports are a must for proper working of KIF.
- KIF is not a guarantee or solution for any problem happening in the shipments or storage of fresh produce.
- If the packing and storage protocols are followed, KIF gives excellent results.
- It is requested that customer takes trials of KIF and develops confidence before placing bulk orders.
- KIF is a totally eco-friendly and non hazardous product made from zeolites and oxidizing agents. It does not cause any harm to fresh produce or release any toxic chemical. The used sachets/tubes/filter media can be used as manure in gardens/lawns or disposed off as normal waste.
- KIF does not release HEAT or any kind of chemical or gases. It does not spoil the fresh produce at any stage but is a solution to absorb the gases released by fresh produce and extend their shelf life and quality.
- The user is requested to take this product and do satisfactory trials before going for bulk use.

Company is not responsible for any damages or problems occurring due to post harvest quality, storage or REEFER problems.



# SGS FDA TEST REPORT



www.keep-it-fresh.com

# SGS

## TEST REPORT

Report No. : MAN:HL:7480003070

DATE : 18<sup>th</sup> February, 2016



HI TECH INTERNATIONAL  
PLOT NO-B 31,, BEANT COLONY JAMALPUR  
LUDHIANA-141010  
INDIA  
CONTACT PERSON : MFL SIDHARTH SAREEN

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION ROT NOT BAG  
COLOUR GREEN  
BUYER HI TECH INTERNATIONAL  
COUNTRY OF ORIGIN INDIA  
SAMPLE RECD ON 08/02/2016  
TEST PERFORMING DATE 09/02/2016 TO 18/02/2016

TEST REQUESTED PLS. REFER TO SUMMARY

TEST METHOD & RESULT(S) PLEASE REFER TO NEXT PAGE(S)

### SUMMARY OF TEST RESULTS:

TEST REQUESTED	CONCLUSION
US FDA 21 CFR 177.1520 (Olefin Polymers) Maximum Extractable fraction Maximum Soluble fraction	Pass

Per Pro SGS India Pvt Ltd.

Ashish  
Sr. Executive  
Email your Test Report Related Enquiries at Feedback.HLT@sgs.com



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# COMPARATIVE STUDY

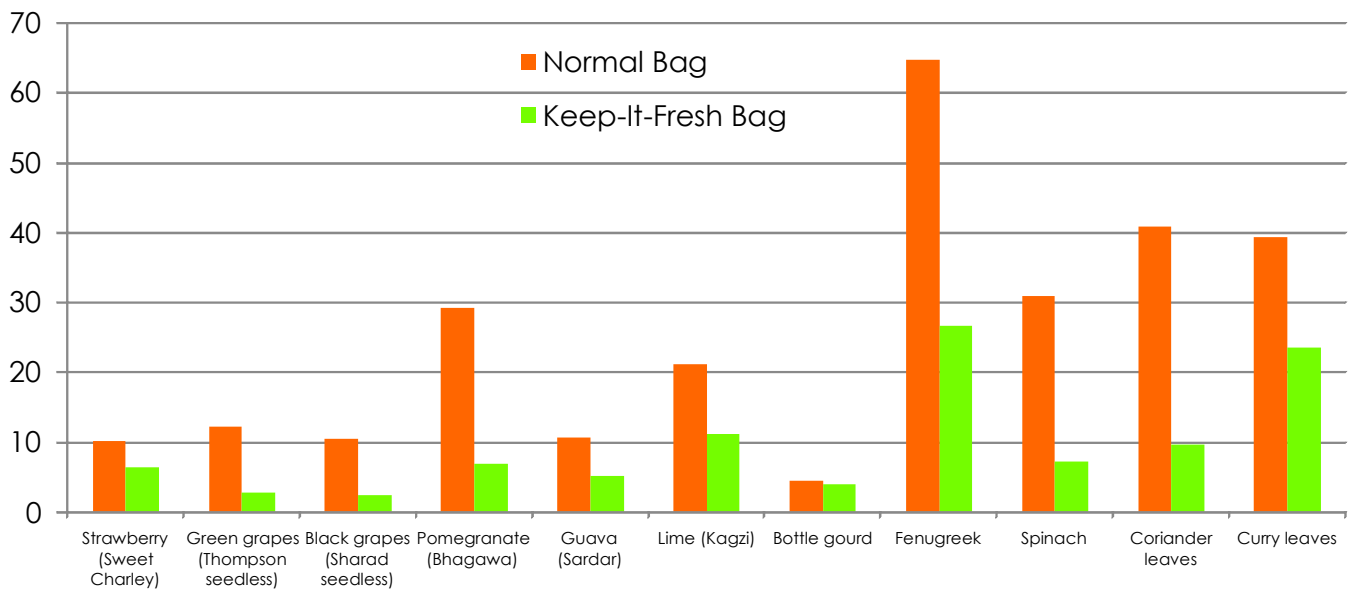


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## WEIGHT LOSS COMPARISONS

### NORMAL BAG VS KIF BAG

NO.	FOOD PRODUCT	Percentage Weight Loss (%) At Room Temperature		STORAGE DAYS At Room Temperature In Keep It Fresh
		Control bag	Keep It Fresh bag	
1.	Strawberry (Sweet Charley)	10.04	6.19	5
2.	Green grapes (Thompson seedless)	12.05	2.57	13
3.	Black grapes (Sharad seedless)	10.38	2.26	15
4.	Pomegranate (Bhagawa)	29.04	6.82	65
5.	Guava (Sardar)	10.50	5.12	8
6.	Lime (Kagzi)	21.02	10.99	13
7.	Bottle gourd	4.44	3.85	11
8.	Fenugreek	64.69	26.54	5
9.	Spinach	30.87	7.17	3
10.	Coriander leaves	40.85	9.45	3
11.	Curry leaves	39.24	23.40	5



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## ETHYLENE PRODUCTION FROM DIFFERENT FRUITS & VEGETABLES

LOW <1.0 ml/kg/hr	MODERATE 1-10 ml/kg/hr	HIGH 10-100 ml/kg/hr	VERY HIGH >100 ml/kg/hr
Pineapple, artichoke, cauliflower, broccoli, date, orange, spinach, beet root, green asparagus, celery, lemon	Banana, mango, plum, tomato	Apricot, nectarine, pear, peach	Apple, Avocado, cherimoya, passion fruit

# FARNAM

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