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**FOOD IRRADIATION**

*Update*

NEWSWEEK  
SEPTEMBER 01, 1997

# Newsweek

September 1, 1997 • \$2.95

SWINGING MOSCOW  
WOMEN'S B-BALL ON THE LINE

## Can This Meat Kill You?

THE **E. COLI** THREAT—  
IT'S WORSE  
THAN YOU THINK

**BEEF CHUCK GROUND**  
(FAMILY PACK)

**SAFE HANDLING INSTRUCTIONS**  
THIS PRODUCT WAS PREPARED FROM INSPECTED AND PASSED MEAT AND/OR POULTRY. SOME FOOD PRODUCTS MAY CONTAIN BACTERIA THAT COULD CAUSE ILLNESS IF THE PRODUCT IS MISHANDLED OR COOKED IMPROPERLY FOR YOUR PROTECTION. FOLLOW THESE SAFE HANDLING INSTRUCTIONS.

- KEEP REFRIGERATED OR FROZEN.
- THAW IN REFRIGERATOR OR MICROWAVE.
- KEEP RAW MEAT AND POULTRY SEPARATE FROM OTHER FOODS. WASH WORKING SURFACES (INCLUDING CUTTING BOARDS), UTENSILS, AND HANDS AFTER TOUCHING RAW MEAT OR POULTRY.
- COOK THOROUGHLY.
- KEEP HOT FOODS HOT. REFRIGERATE LEFTOVERS IMMEDIATELY OR DISCARD.

PACKED ON  
AUG 26

NET WT 1.65 PRICE/LB 1.99 TOTAL PRICE \$3.28

#BXBCMDG##CHR-RT-SORT C002  
#000892247810017#DES7 MNZ-ZH P00050L 025207  
SAUSAGE PUB LIB  
PLAZA W SHOPPING CTR  
4341 W HIGHWAY 13  
SAUSAGE MN 55378-1479

# Meat Recalls *E. Coli* O157:H7



*Jack in the Box*  
(1993)

# Food Irradiation

# Minnesota

*Steps Forward*



A Food Safety Conference sponsored by the Food Safety Center of the Minnesota Department of Health in coordination with the Minnesota Department of Agriculture

**Food Safety Conference**  
**June 21-22, 1999**

**Northland Inn**  
**Brooklyn Park, MN**



# What did we learn?

- Most people don't know much about irradiation.
- Some strongly support the technology.
- There are “doubters”.
- The majority do not have strong opinions (neutral to slightly positive).
- A little information moves most from neutral to positive.
- Some will never be convinced (10% plus/minus).

<http://www.mnbeef.org/index.htm>

Name \_\_\_\_\_

Master

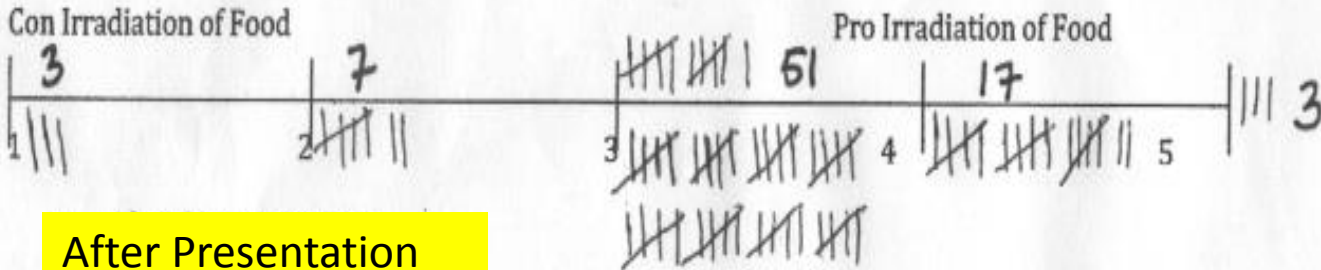
Date FN-222

IRRADIATION

Ron Eustice - Executive Director, Minnesota Beef Council & Amy Halvorson, RD - Minnesota Beef Council

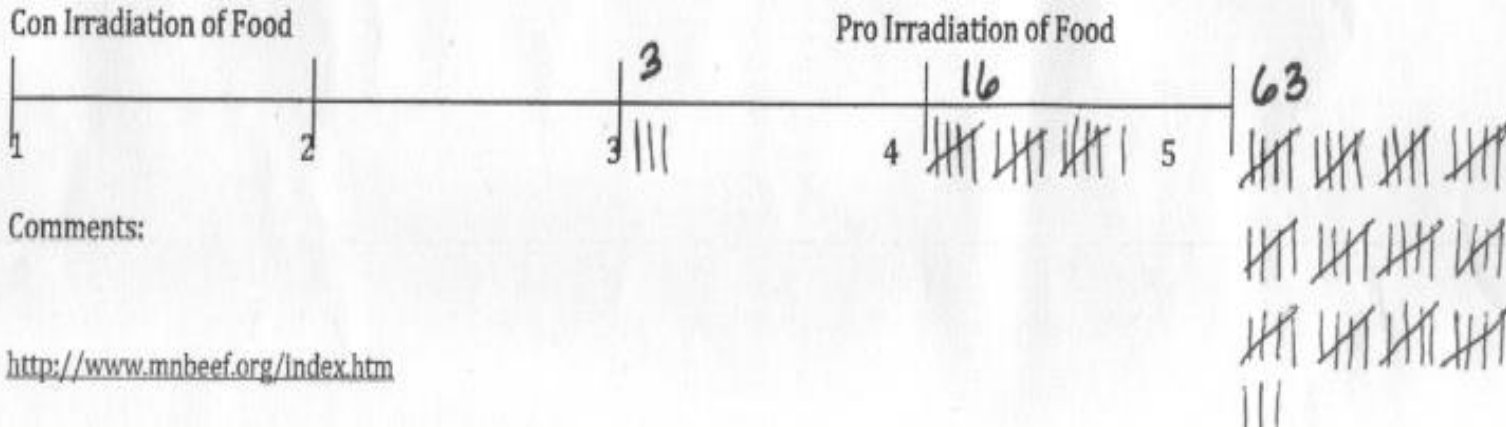
Before Presentation

Circle a Number



After Presentation

Circle a Number



Comments:

# University of Wisconsin, Stout

Classroom Presentation, November 2, 2011

## Opinion of Food Irradiation

Group 1

Group 2

Opinion of Irradiation	Before Presentation	After Presentation
5	0	15
4	4	34
3	47	4
2	3	0
1	0	0
Total	54	53

Opinion of Irradiation	Before Presentation	After Presentation
5	1	12
4	25	57
3	54	11
2	3	3
1	0	0
Total	83	83

Scale: Highest = 5; Lowest = 1

# Messages for Consumers

- Irradiation of meat, produce and other foods is a good thing.
- People are already buying irradiated foods and have done so for more than two decades. Hundreds of millions of pounds of irradiated foods have been sold at retail in several countries.
- Foods that have been irradiated taste the same and are just as nutritious as non-irradiated foods.

# Messages for Consumers

- Irradiation of food is endorsed or supported by virtually every medical and scientific organization in the world (that has taken an official position).
  - World Health Organization
  - American Medical Association
  - American Dietetic Association
  - Hundreds more .....





# May 2000



*Schwan's Burgers always cook up tender, juicy, and full of big, beefy flavor! At Schwan's, we're very proud of our dedication to bringing you quality, great taste and convenience. In keeping with this tradition, we utilize USDA/FDA-approved irradiation, the latest in food safety technology. This innovative process continues our commitment to superior quality and safety by ensuring that all our beef burgers are the best they can possibly be.*

*Stack a couple of these Quarter-Pound Burgers with crisp slices of our hickory-smoked Thick Sliced Bacon (440) and tangy triangles of our American Processed Cheese (661) for a truly memorable burger!*

*Keep Frozen  
Cook Thoroughly*



*Schwan's*  
**GROUND  
CHUCK**  
*Beef Burgers*

9-5.3 OZ. BURGERS

SERVING SUGGESTION





**value price**

**Ground Beef**  
Specially designed to be moist and juicy with 85% lean beef making it a versatile ingredient, perfect for recipes. Irradiated for your safety.

4-8 oz. packs, 2 lbs.

WAS \$7.99 **#413 | NOW \$7.89**

99¢ per Serving, Serves 8

TREATED WITH IRRADIATION



**New!**

**LIVESMART**

**Breakfast Steaks**  
Steak and eggs define the hearty breakfast. These just-right portions of beef let you create a sizzling breakfast right at home. Just add your favorite eggs.

8-2 oz steaks  
cal 90 fat 4.5g sodium 105mg carbs 0g

**#454 | \$9.99**

\$1.25 per Serving, Serves 8

TREATED WITH IRRADIATION

schwan's



**Black Angus Steak Burger**  
Fans of Black Angus beef will love this juicy, one-third pound burger. Irradiated for your safety.

8-5.3 oz. burgers, 2.65 lbs.

**#458 | \$15.29**

\$1.91 per Serving, Serves 8

TREATED WITH IRRADIATION



**Quarter Pound Beef Patties**  
Our classic quarter pound burger, full of big, beefy flavor. 90% lean, irradiated for your safety.

8-4 oz. patties, 2 lbs.

**#421 | \$9.99**

\$1.25 per Serving, Serves 8

TREATED WITH IRRADIATION

**Schwan's markets irradiated beef patties nationwide. All raw ground beef at Schwan's is irradiated.**





Home > Meat > Beef & Pork > Black Angus Burger



## Black Angus Burger

#458 | Serves 8

8 - 5.3 oz. burgers, 2.65 lbs.

★★★★★ 4.6 (1150)

**\$17.99**

Qty

**Add To Cart**

Like

Pin it

Share

### Delicious Details

Fans of Black Angus beef will love this distinctive juicy, one-third pound burger. Take directly from the freezer and pop on the grill, or in a hot grill pan with a little salt. The extra rich beefy flavor of these burgers make for the perfect snack, lunch, or dinnertime option. Irradiated for your safety.



#458

BLACK ANGUS  
**STEAK BURGERS**



- Mail order nationwide
- Nearly 100 retail stores in 29 states
- Expanding by 4 to 5 stores per year



**OMAHA STEAKS**

Beef

**1136**



**Ground Beef** (Omaha Steaks Premium)

4 - 1 LB. Packages

NET WT.: 64 OZS. (4.00 LBS.)



# Irradiated Ground Beef

## Wegmans Markets, Rochester, New York



# Wegmans opens pub in Perinton store



- The first Rochester, area Pub by Wegmans opened a week ago in Perinton, NY. The pub is Wegmans' ninth pub and the second in New York State.
- The best seller among Wegmans' pubs, according to restaurant manager Jigmed Latshang, is the pub cheeseburger, a half pound, hand-formed burger that has been irradiated so that it can be grilled safely to a customer's preference.

# Edible Commodities that Require Irradiation Treatment for Import to the Mainland US

Australia	Mango, Litchi
Ghana	Eggplant, Okra, Pepper
India	Mango
Malaysia	Rambutan, Papaya, Jackfruit, Pineapple, Starfruit
Mexico	Guava, Chile Manzano, Sweet Lime
Pakistan	Mango
Philippines	Litchi, Longan, Rambutan
South Africa	Persimmons, Litchi, Grapes-- <i>Pending</i>
Thailand	Litchi, Longan, Mango, Mangosteen, Pineapple, Rambutan, Dragon Fruit
Viet Nam	Dragon fruit, Rambutan
Hawaii	Abiu, Atemoya, Banana, Breadfruit , Carambola, Cucurbita spp., Dragon fruit, Eggplant, Guava, Jackfruit, Mangosteen, Melon, Moringa pods, Capsicum Pepper, Sapodilla, Tomato, Cowpea

## **Countries who have signed the irradiation Framework Equivalency Work Plan (FEWP) with the United States**

- **Australia**
- **Dominican Republic**
- **India**
- **Laos**
- **Malaysia**
- **Mexico**
- **Pakistan**
- **Peru**
- **Philippines**
- **South Africa**
- **Thailand**
- **Vietnam**

*As of January 19, 2016*



# Oyster Irradiation



Irradiation reduces *Vibrio vulnificus*, a naturally occurring marine bacterium that can make some people very sick or can kill them to non-detectable levels.



# Hawaii Exports of Irradiated Produce to US Mainland

Hawaii Exports of Irradiated Produce to US Mainland		
Year	Metric Tonnes	Pounds
2007	3823 Metric Tonnes	8.4 Million Pounds
2008	3915 Metric Tonnes	8.6 Million Pounds
2009	3324 Metric Tonnes	7.3 Million Pounds
2010	5746 Metric Tonnes	12.7 Million Pounds
2011	6220 Metric Tonnes	13.7 Million Pounds
2012	4296 Metric Tonnes	9.5 Million Pounds
2013	6000 Metric Tonnes	13.2 Million Pounds
2014	6500 Metric Tonnes	14.3 Million Pounds
2015		

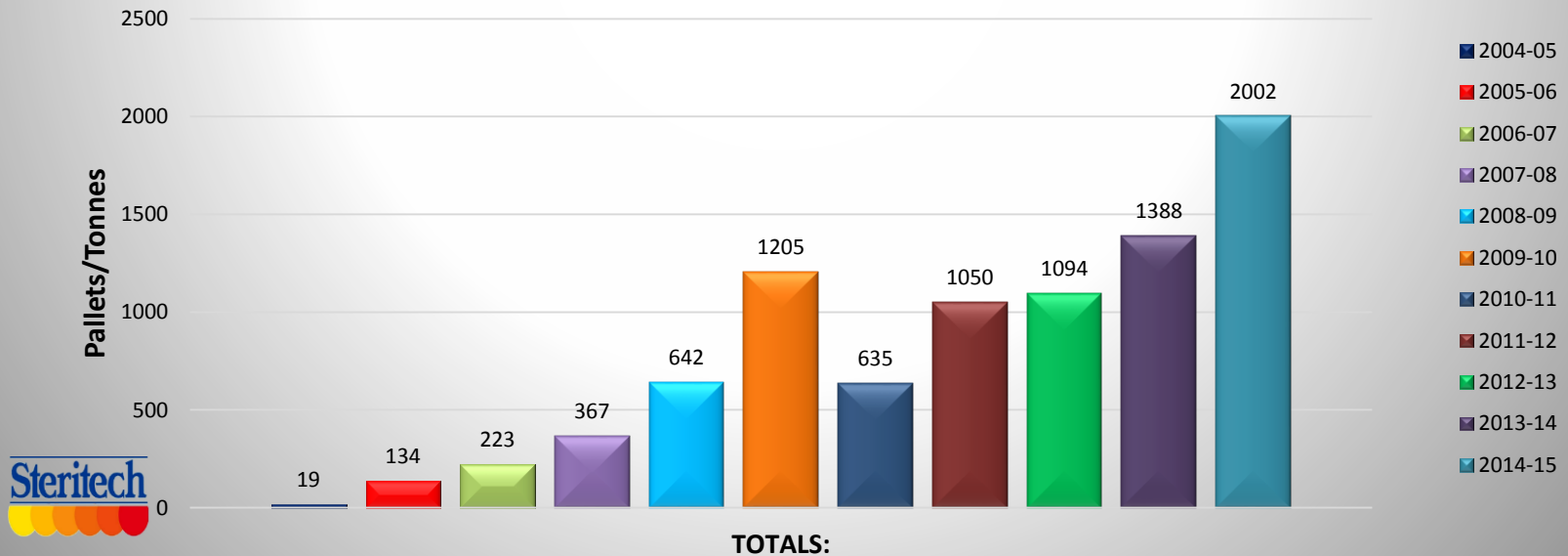
The #1 irradiated export crop is purple sweet potato. Also irradiating longan, rambutan, sweet basil, dragon fruit, papaya, curry leaf, banana, and mango (volumes roughly in the order). All are exported to the U.S mainland. Hawaii should be sending first irradiated papayas to New Zealand sometime soon. All approvals are in place.

# Hawaii



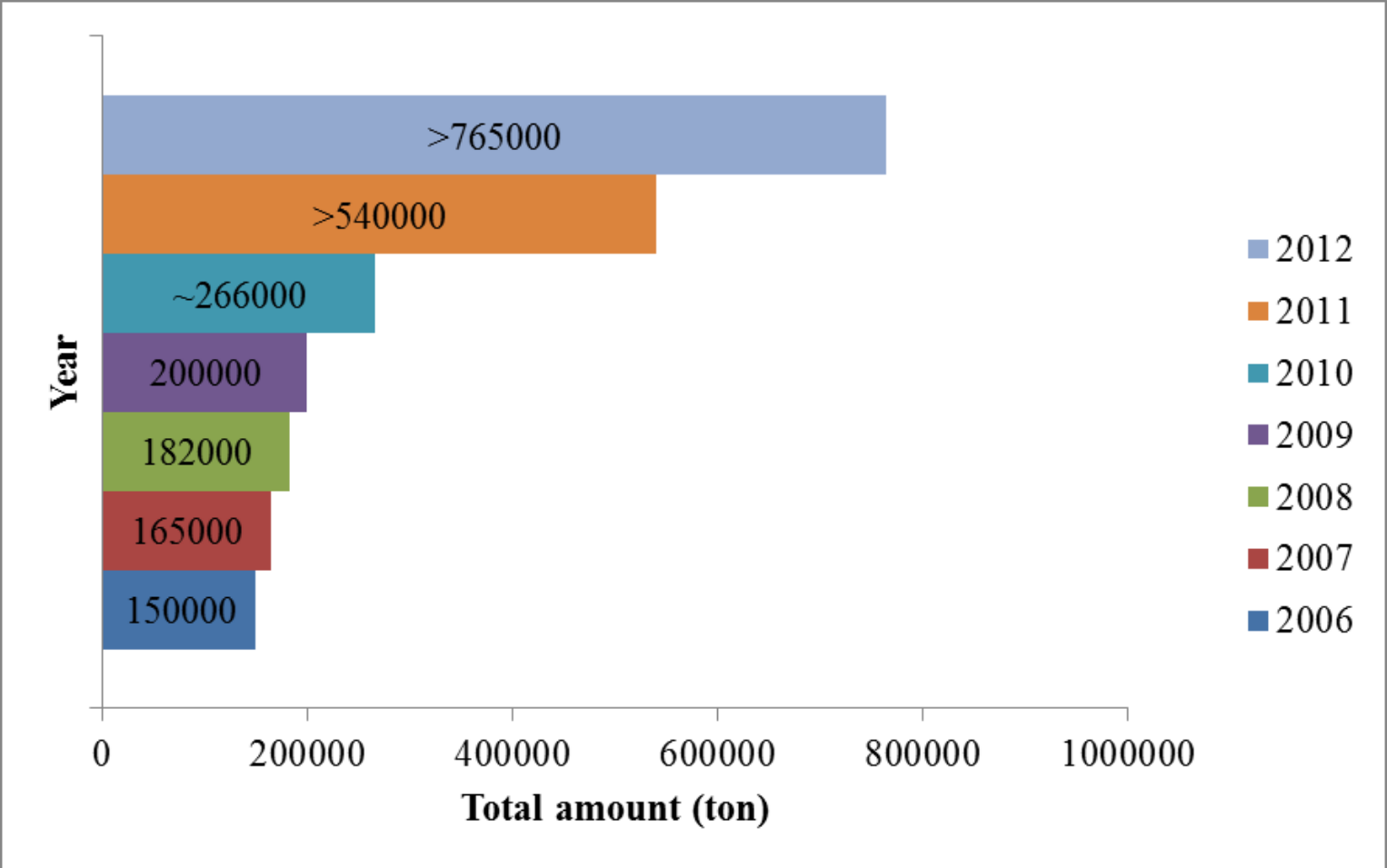
# History of Irradiated Australian Fresh Produce Exported (Tonnes/Pallets)

Season	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Mangoes (NZ/U.S/Malaysia)	19	129	201	346	585	1095	620	918	1018	866	1480
Tomatoes (NZ)										413	430
Capsicums (NZ)										58	28
Lychees (NZ)		5	10	20	57	110	15	132	76	29	34
Papaya (NZ)			12	1						22	
Plums (Indonesia)											2
Table Grapes (Indonesia)											28
<b>TOTALS:</b>	<b>19</b>	<b>134</b>	<b>223</b>	<b>367</b>	<b>642</b>	<b>1205</b>	<b>635</b>	<b>1050</b>	<b>1094</b>	<b>1388</b>	<b>2002</b>



\* 2010-11 growing season adversely affected by severe weather conditions (cyclones) in some parts of Qld

# Quantities of food irradiated in China



## Exportation of Irradiated Mexican Fruit to the USA:

Product	Total 2010 Pounds (Tons)	Total 2011 (estimate) Pounds (Tons)
Guava	16,000,000 (7,260)	17,500,000 (7,950)
Mangos	350,000 (160)	400,000 (182)
Peppers	350,000 (160)	400,000 (182)
Grapefruit	0	100,000 (45)
<b>Total</b>	<b>16,700,000 (7575)</b>	<b>18,400,000 (8,347)</b>

# Mexican Guavas



# Mexico



## Mexico to encourage citrus exports with new irradiation plant



March 22, 2016

Mexico's Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) has announced it will be promoting the construction of an irradiation plant in the country's northeast, with the aim of supporting citrus exports.

In a meeting with citrus growers and federal legislators, SAGARPA chief José Calzada Rovirosa said the plant would allow the industry to increase its supply available for foreign markets, particularly the United States.

FreshFruit Portal (March 22, 2016)



# India Mangoes



FRUITS & VEGETABLES			
TEL: 02637 - 28154 FAX: 02637 - 28154			
KRUSHAK B.A.R.C., Lasalgaon, INDIA.			
Treated by Irradiation			
PUC :	014	TFC :	1001
PHC :	03	TIN :	290507025
Packing Date :	280507	Treatment Date :	290507
Lot Number :	24		

Area for Country - specific requirements

# South Africa



# Russia/India Cooperation

- **Rusatom State Corp has picked up a 51 per cent stake in Tamil Nadu-based Gamma Tech India Private Ltd. to jointly implement a project that aims to set up a network of irradiation sterilisation centres across India.**

**The centres to be developed by Rusatom Overseas JSC will offer food decontamination and sterilisation by ionizing radiation, including decontamination of fruit, berries and other products exported from India to developed countries. The centres will be constructed in Tamil Nadu, Kerala, Karnataka, Andhra Pradesh and Maharashtra.**

# Bolivia

## Bolivian Senate approved intergovernmental agreements with Russia

The application of irradiation technologies for food and agricultural products treatment, pest and bacteria control will make it possible to increase the products storage period while creating conditions for the increase of national agricultural products export.



The Center will be equipped with the state-of-the-art equipment for researches within the framework of the national nuclear and research program of Bolivia, contributing to the improvement of the education and science level in the country.

# Pakistan identifies new fruit export markets

- The government of Pakistan is seeking to expand fruit exports to new high-end markets; namely South Korea, Australia, Lebanon, the United States, Mauritius, Bulgaria and Latvia.
- Pakistan is trying to get better market access in international markets through Free Trade Agreements (FTAs).
- An irradiation facility at Lahore is being completed.
- *Source: Fresh Plaza 2/8/2016*

# Messages for Retailers

- People are already buying irradiated foods and have done so for about two decades.
- You don't have to be first...In fact you won't be second, third or even fourth. How about 50<sup>th</sup>?
- Irradiated foods are probably already on the shelves of your supermarkets.

# Seen on major retailer shelves

**Cadet**  
Chicken Breast

Thank you for choosing Cadet. We are pet owners too and understand the importance of rewarding our dogs with healthy and natural treats made with only the finest ingredients. That's why we go to great lengths to maintain the quality and consistency of our products.

**INGREDIENTS:**  
Chicken, Vegetable Glycerin, Soy Protein Isolate, Salt.

**Guaranteed Analysis:**

Crude Protein	Min. 65%
Crude Fat	Min. 1%
Crude Fat	Max. 5%
Crude Fiber	Max. 2%
Moisture	Max. 16%

**FEEDING RECOMMENDATIONS:**  
**Adult Dogs:** Intended as a reward treat, not a meal replacement. Give approximately 1-2 treats per 15 pounds of your dog's weight, not to exceed 6-8 treats per day. For smaller dogs break treat for easier chewing. This treat is not recommended for dogs under 5 lbs.

**Inspected & Tested In The U.S.A.**  
Our products are inspected and tested to verify that they meet our high quality standards.

**Contains NO**  
NO Artificial Colors  
NO Artificial Fillers  
NO Artificial Flavors

**High in Protein**  
Cadet® Chicken Breast provides your dog with a high protein treat that is naturally low in fat.

Visit Us At: [www.imspet.com](http://www.imspet.com)  
Product of China  
Not For Human Consumption.  
Distributed By:  
IMS Pet Industries, Inc.,  
34 Passaic Street,  
Wood-Ridge, NJ 07075

Always supervise your dog when giving him any treat or chew. Always be sure to provide plenty of fresh water.

SHH091 26415  
BEST BY: 092017



# Moving Forward

- The success of actual retail sales of irradiated foods and the evidence from sophisticated studies of consumer attitudes toward irradiation strongly suggest commercial use of food irradiation will increase steadily perhaps even dramatically.

***Success builds on success. Let's build on our success and proudly step forward!***



# Future Directions

- Taking every opportunity to place in front of food producers and retailers the evidence of successful, long-term marketing of labeled irradiated foods.
- Increasing the amount of irradiated food on retail shelves through seeking the cooperation of entrepreneurial retailers, who are likely to be small or medium-sized.
- Retailers who serve ethnic markets are likely to be open to marketing irradiated produce because in many cases the product cannot be imported unless it is irradiated.

# Food Irradiation

[Home](#)[What's For Dinner?](#)[Research](#)[Learn More](#)[Recent News](#)[About Us](#)[Contact Us](#)

## Food Irradiation:

Food irradiation—a food safety, food preservation or quarantine measure used in more than 50 countries—is a process in which food is exposed to a source of ionizing energy. Irradiation provides processors with a further safe alternative to treat foods. For example, processors may irradiate herbs and spices to control sprouting and kill pests in place of chemical treatments. Or they may use irradiation to destroy the unwanted pests that can accompany food when it is traded regionally or imported from other countries. Decades of peer-reviewed research worldwide has shown that irradiation of food is a safe and effective way to kill bacteria in foods, extend its shelf life and reduce insect infestation. Food irradiation has been examined thoroughly by joint committees of the World Health Organization (WHO) and the United Nations Food and Agriculture Organization (FAO), by the European Community Scientific Committee for Food, the United States Food and Drug Administration, by a United Kingdom House of Lords committee and by thousands of scientific experts and hundreds of health organizations worldwide.

### WHAT'S NEW

- [US Consumers welcome Australia mangoes](#)
- [Consultation on irradiated food labelling requirements](#)
- [Australian mango growers make major shipments to US](#)
- [South Africa exports first air shipment of litchis to the United States](#)
- [Bolivia to begin construction of first Irradiation Facility](#)
- [Hawaii Irradiated Produce Volumes](#)  
[NEW: Pakistan fruit, vegetable other sectors to get irradiation facility to increase exports](#)
- [Food Irradiation in the United States: An Update](#)
- [Worldwide Irradiated Food Volume Estimates](#)
- [Wegmans Grilled Irradiated Cheddar Burger](#)
- [South African persimmons irradiated at the Gateway America irradiation facility in Gulfport, MS](#)
- [Recent Approvals](#)
- [Food Irradiation Treatment Facilities Database \(FITF\)](#)

## Breaking News



Gateway  
America  
Excitement

### FOOD IRRADIATION CONTACTS

For more information contact TEAM GENESIS teammates:

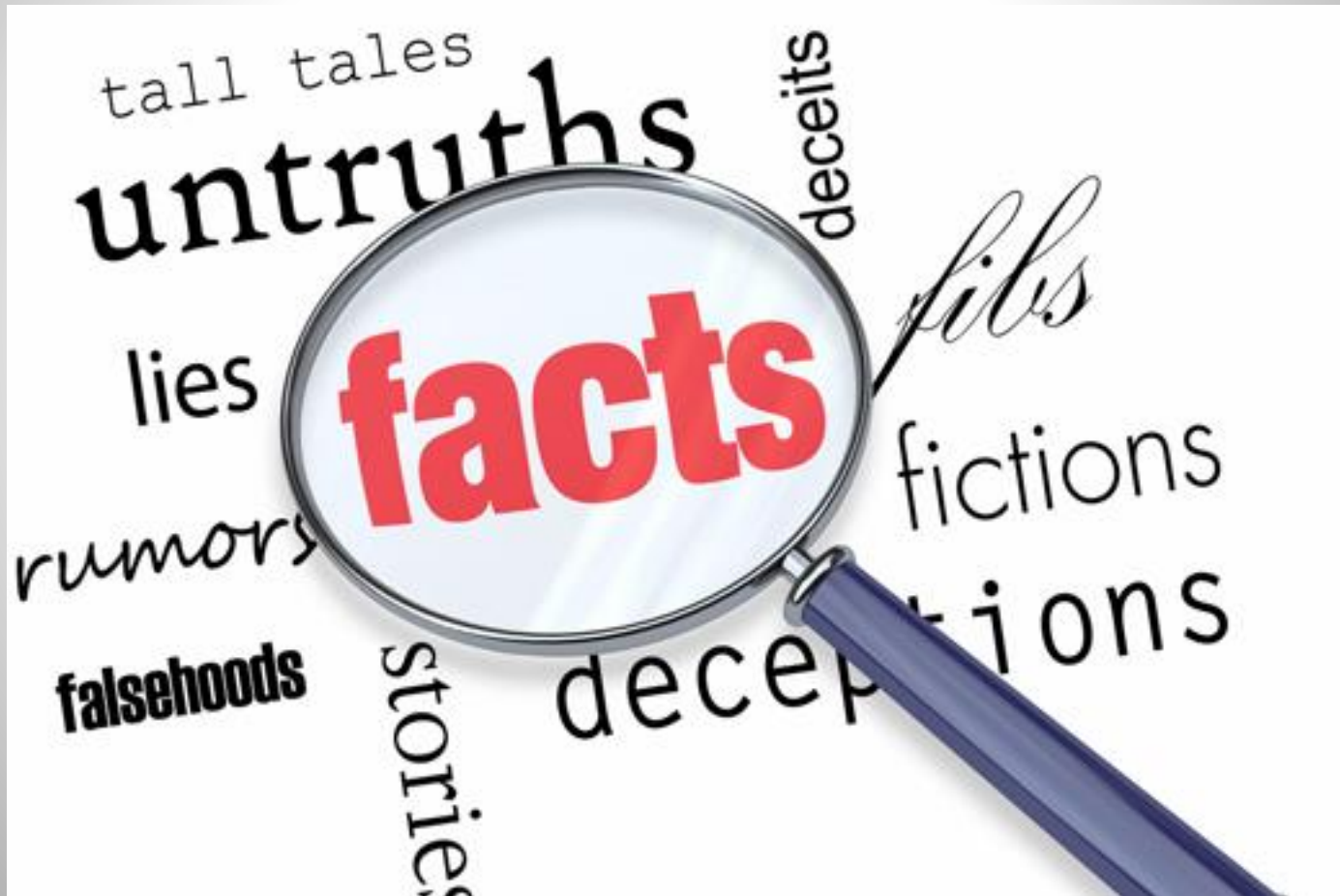
[GRAY\\*STAR, Inc.](#)  
[Pa'ina Hawaii](#)  
[Gateway America](#)  
[Crystal Seas Oysters](#)

### QUESTIONS AND ANSWERS

[Food Irradiation Questions and Answers](#)  
[Myths and Facts about Food Irradiation](#)

# MYTHS & FACTS

## *About Food Irradiation*



# FOOD IRRADIATION

*Update*

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**February 2016**



*Food Irradiation Update is published monthly by Ronald F. Eustice, a food quality & safety assurance consultant based in Tucson, Arizona. He can be reached at:*

[reustice@gmail.com](mailto:reustice@gmail.com)  
and at 612.202.1016

How often we hear the words "Eat healthy" and are told to eat fruits and vegetables! The problem is that most consumers live in climates where fruits and vegetables are only available during a brief season. In many other countries, phytosanitary rules designed to protect local agriculture prevent importation from countries with pests that can "hitch hike" on imported produce. Irradiation is changing all this by opening up new markets for previously prohibited produce. It's a "Win, Win" situation! Consumers can eat healthier, farmers that produce the product gain market access, farmers in the receiving country are protected from invasive pests and international commerce is enhanced. We all gain.

## IN THIS ISSUE

**FEATURED ARTICLE:** Irradiating Insect Pests

**MYTH of the MONTH:** "E-Beam irradiators are faster than Gamma irradiators."

**Also in the News:** U.S. re-opens doors for Dominican Republic fruit fly host crops

**Also in the News:** Irradiation preserves blueberry and grape quality

**Also in the News:** New South Wales cherry growers pin hopes on future air freight exports to China

**Also in the News:** Australian cherries in short supply for Chinese New Year.

**Also in the News:** US consumers welcome Australian mangoes

**Also in the News:** Sixth Annual Chapman Phytosanitary Conference

[www.foodirradiation.org](http://www.foodirradiation.org)



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***THANK YOU!***

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**FOOD IRRADIATION**  
*Update*