Agricultural Advancements Using Radiation Techniques

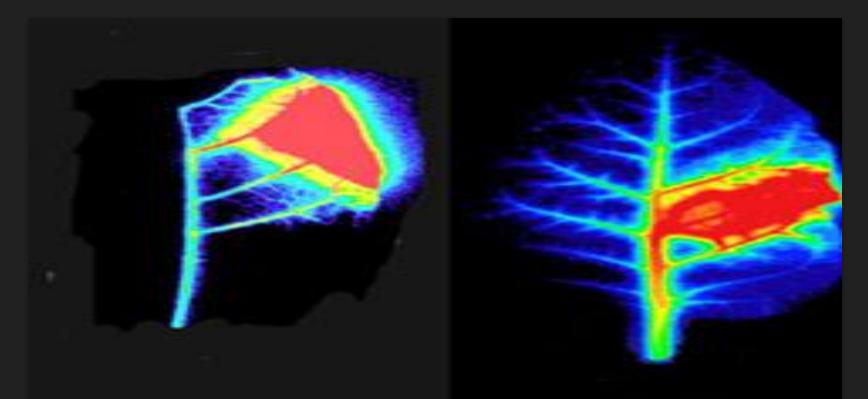
Radioactive tracers can be used to track nutrient flow within plants in order to understand soil utilization. This helps scientists choose fertilizers that will be used most efficiently by the crop.

Applications of radiation have helped decrease the amount of harmful pests in the environment. The sterile insect technique has helped successfully eradicate destructive insects such as the screwworm.

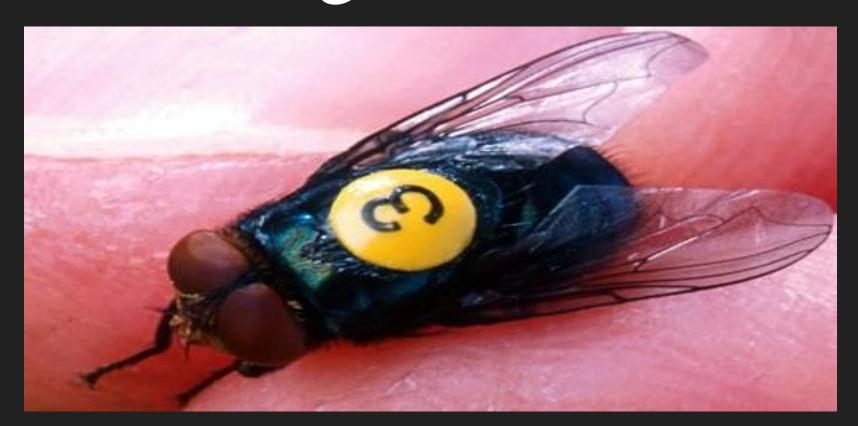
Radiation induced mutations can improve crop varieties to create a more desirable product. This can include creating a juicier, more vibrant, and even seedless crop yield.

Many foods at grocery stores today have been treated with radiation in order to increase shelf life. These products are stamped with the radura symbol to let the consumer know the product has been irradiated and is safe for consumption.

Autoradiograph tracking nutrient flow



Screwworm fly eradicated through radiation



Brookhaven National Library. (16
March 2007). *Positron Autoradiographs of Tobacco Leaves*.

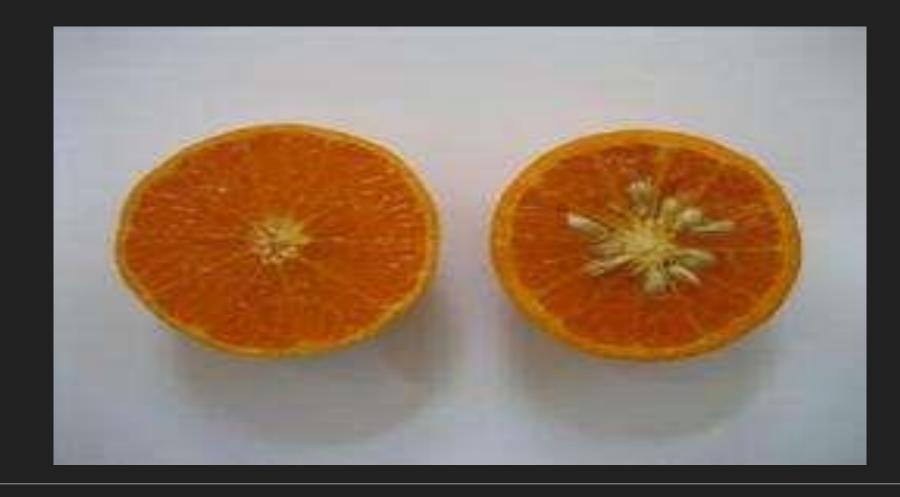
[Photograph]. Retrieved from

https://www.bnl.gov/newsroom/news.p

hp?a=110603

Entomology Today. (22 June 2016). *Sterile Male Screwworm Fly*. [Photograph].
Retrieved from https://entomologytoday.org/2016/06/22/edward-knipling-and-raymond-bushland-win-

Before and after radiation use



Williams, T. (11 April 2011).

Comparison of Kinnow LW and Kinnow.

[Photograph]. Retrieved from

https://phys.org/news/2011-04-citrus-variety-uc-riverside-sweet.html

award-for-the-sterile-insect-technique/

Radura symbol



Butterweck, Joseph. (23 Dec 2010). *Radura Symbol*. [Photograph]. Retrieved from http://ansnuclearcafe.org/2010/12/23/food-irradiation-explained/#sthash.uaRY1550.dpbs