Why GMOs Threaten Food Security in Alaska & What Can Be Done Representative Geran Tarr March 27, 2015

What is a GMO?

 Genetically modified organisms are plants or animals created using the genetic material from <u>unrelated</u> species

• Genetic modification involves the mutation, insertion, or deletion of genes.

 Differs from traditional breeding because of using unrelated species



GM Salmon

- Genetically modified using fast growing Atlantic salmon and DNA from two other species of fish
 - Ocean pout (an eel like fish)
 - Chinook salmon (King)





How a GMO Works

- Pesticide Producer
 - Engineered to produce their own pesticide in the form of *Bacillus thurengiensis* (Bt)
- "Roundup-Ready"
 - Engineered to be resistant to herbicides ("Roundup-Ready" crops)

How Common are GMOs

 United States is the world leader in genetically engineered crop production, with 165 million acres, or nearly half of global production.

 In the United States, approximately 85% of all processed foods contain GMOs

Most Widely Used GMO Crops

- Canola (approx. 90% of U.S. crop)
- **Corn** (approx. 88% of U.S. crop in 2011)
- **Cotton** (approx. 90% of U.S. crop in 2011)
- **Soy** (approx. 94% of U.S. crop in 2011)
- **Alfalfa** (first planting 2011)
- Papaya (most of Hawaiian crop; approximately 988 acres)
- Sugar Beets (approx. 95% of U.S. crop in 2010)
- Zucchini and Yellow Summer Squash (approx. 25,000 acres)
- Apples (approval announced February 13, 2015)

Examples of GMOs

- Roundup ready corn, soy, alfalfa, cotton
- Now second generation crops are being created to include multiple traits
 - Genuity® Bollgard II® with Roundup Ready® Flex Cotton: Both traits are packaged into the cotton seed to provide growers with convenience and maximum flexibility to manage their spray schedule, as well as worm control.

Efforts to Take Back Our Foods

- Many countries are eliminating the use of GMOs
- Japan, Italy, Hungary just a few of the countries banning GMO crops
 - This summer Japan, where labeling is required, suspended their imports of US wheat
- More than 65 countries require labeling of GM food products
 - Same products sold in US are sold in Europe with labels

Efforts to Require Labeling of GMOs

 Citizens understand we have a right to know what is in our food

- Laws passed in Vermont, Maine, & Connecticut
- Citizen initiatives in California, Washington, & Oregon

IRL/GB Salad dressing.

Ingredients: water, vegetable oils
Contains geneticly modified soyabeanoil),
sugar, Vinegar, modified starch, wheat starch,
salt, mustard (water, mustard seed, vinegar,
salt, spices, herbs), egg yolk, thickener
[E412], acids (E330), preservatives (E202),
colours (E160a), antioxidant (E385).

Produced in: The Netherlands. Store in a
cool, dry place. Shake before use.

GLASBAK

ULENT CHICKEN AND BRIGHT VEGETA

INGREDIENTS

VION - SUGAR - GREEN PEPPERS - SOY SAUCE (**
'EIN - SUGAR - PRESERVATIVE: E211) - FRESH RI
'ATINE - VINEGAR - TOMATO KETCHUP - TON
I SOY SAUCE (WITH SOYBEAN* - WHEATFLC
DLOUR: E150 - CHILLI EXTRACT) - SALT - SES

** GENETICALLY MODIFIED

MINIMUM 34% CHICKEN

How to Avoid GMO foods

Buy organic

Look for labels





Food Availability

