

## MEADOWLARK EXTENTION DISTRICT WEEKLY NEWS FROM AGENTS

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### **Peanut Butter Balls and Genes**

We talk a lot about genetics in the livestock world. Not so much on the human side of things. My youngest son thinks he should get a DNA test. I told him he could pay me the cost and my turn around time is immediate! I'm not sure what he thinks he is going to find out? I guess it's in the Holthaus DNA to sneak cookies and candies at Christmas time. There was that one year, when I made the peanut butter balls and stuck them in the freezer to chill. After about a week, I decided it was time to dip them in chocolate, except that there were just a handful to dip. It wasn't difficult to figure out who the culprit was. The one that looked green around the gills, when I mention, peanut butter balls. Now several years later, he is asking for just a few peanut butter balls. When I make Christmas cookies or candy, I give everyone a taste, and then put them away for Christmas. Last night, I caught grandgirl #1, going back for seconds and thirds. She said "But Grammy they are so good". Her daddy just said, "its genetics".

DNA or deoxyribonucleic acid, is the hereditary material in humans and almost all other organisms. Nearly every cell in your body has the same DNA. The information is DNA is stored as a code made up of four chemical bases, adenine, guanine, cytosine and thymine. The order, or sequence, of these four bases are what make you, you.

Scientist are able to change some of these bases and make something like this, they can create an orange the size of a baseball into a smaller version, like the little cuties! That is called a Genetic Modified Organism, a GMO. When a gene from one organism is purposely moved to improve or change another organism in a laboratory, the result is genetically modified organism.

There are different ways of moving genes to produce desirable traits. For both plants and animals, one of the more traditional ways is through selective breeding. This is the case with seedless watermelons.

Genetically engineered products are not new. Insulin used in medicine is an example of genetic engineering: the insulin from the intestines of pigs is inserted into bacteria. The bacterium grows and produces insulin; this insulin is then purified and used for human medicine.

Thyroid medicines, until recently were derived from animals, now the hormone can be cultured from bacteria.

GMO's are in the middle of a controversy, yet there is no scientific evidence that they have caused any harm. There are those that argue, GMO crops use too many herbicides. The truth of the matter is, without the GMO crops, many more herbicides would need to be used.

As consumers, I think it is important to educate yourself with the facts about your food.