"Does it Make you Hormonaey?"

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Consumers have misconceptions about the way food is produced and what chemicals are naturally found in foods, especially with respect to the use and presence of hormones. This led to the investigation into the presence of estrogen in foods and its effect on consumers to answer the question "Does it Make you Hormoaney?". Estrogen is a sex hormone found in females and males that assists with reproductive development (Jewell 2019). Although estrogen is more prominent in females, it also plays a vital role in maintaining homeostasis within males (Jewell 2019).

Society has a negative opinion about estrogen in food due to misleading information. Individuals are generally unaware that plants are actually rich in estrogen, including fruits, vegetables, seeds and grains. Estrogen in plants is known as phytoestrogen,



and is found within soybeans which are used to make tofu and soy milk (Sirotkin and Harrath 2014). However, it was proven that soy products have no significant effect on estrogen levels in men (Nagata et al. 2000).

Estrogen implants are a practice used within the beef industry. Society believes that the implanted hormone enters the meat and alters a person's estrogen level upon consumption. However, the implant is injected into an animal's ear underneath the skin which allows for certainty that the hormones will not enter the food supply because the ears are discarded at slaughter (Centre for...2019). The purpose of implants is to improve muscle growth in cattle with a reduced feed intake ultimately decreasing a producer's production cost (Loy 2011). In fact, there is more estrogen in men than in beef from implanted cattle (Table 1) (Loy 2011). Therefore, the estrogen in food does not make you "hormoaney" as the naturally occurring estrogen has minimal effects upon the consumer and any implanted estrogen does not enter the food supply.

Table 1: Levels of estrogen found within people and food (Loy 2011).

People:	Level of Estrogen
Adult Woman (non-pregnant)	513, 000 ng/day
Adult Man	136, 000 ng/day
Pre-pubertal Children	41, 000 ng/day
Food:	Level of Estrogen
500g of Soy Flour defatted	755, 000, 000 ng
500g of Tofu	113, 500, 000 ng
500g of Peanuts	100, 000 ng
500g of Eggs	555 ng
500g of Milk	32 ng
500g of Beef (from implanted cattle)	7 ng
500g of Beef (from non-implanted cattle)	5 ng

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