

The E. Coli Vaccine And Its Effects

Alejandro Garcia

Laredo Community College / Texas State University

Introduction

- E. Coli O157:H7 first recognized as an illness in 1982.
- Not only can infection come from meat, but also from unpasteurized milk and apple cider, ham, turkey, roast beef, sandwich meats, raw vegetables, cheese, and water.
- Escherichia coli has been a problem in the agriculture economy for generations. Many laws have been put into play and improvements have been done in suppressing the E. Coli outbreaks. Now the next step in preventing E. Coli in the first place is through vaccinations. Even though vaccinations to prevent E. Coli has not entered the market, it has been researched and a vaccination has been found.

Objectives

Review of Literature

- Escherichia coli causes an estimated 500,000 deaths annually, mainly due to dehydration. (Powers)
- EpiTopix LCC is the first in the U.S. market given federal license to sell vaccines for cattle. (Press)
- Vaccine prevents E. Coli from absorbing iron, which in turn causes the E. Coli strain to die. (Press)
- The USDA approved E. Coli vaccine showed a decrease of 85% of E. Coli in animal shedding. (Phang)
- Escherichia Coli does not only infect plants through contact on the surface, but it can also enter the plant through its root system and get transported upward to locations within the edible portions of the plant. (Solomon, Yaron, Matthews)
- E. Coli can travel on flood waters and land at quite a distance from the initial source.

Possible Sources of E. Coli

Sources of E. Coli

Symptoms of Infection

- Nausea and vomiting.
- Diarrhea, watery at first, but often becoming very bloody.
- Severe stomach cramps.
- Symptoms usually end in about a week with no problems afterwards.
- Hemolytic Uremic Syndrome, a complication that results in low red blood cell count (hemolytic anemia), a low platelet count (thrombocytopenia), and kidney damage (renal failure) can be permanent. (Iannelli)

Conclusion

References

- <http://www.nytimes.com/2007/05/01/health/01coli.html>
- <http://foodpoisoning.pritzkerlaw.com/archives/e->