



## FOREIGN OBJECT CONTAMINATION IN BEEF CATTLE

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### INTRODUCTION

Food safety has become a very important issue in today's society. One important aspect of food safety is foreign object contamination of beef products. The beef industry has lost millions of dollars from foreign objects found in meat. Foreign objects can be defined as glass, metal, plastic or wood objects found on or imbedded in beef products. These objects cause consumers to lose confidence in beef products and these costs are carried on to the producer indirectly through lower demand for beef. Foreign objects cost processing companies millions of dollars in claims, condemned product, and downtime. These objects must be prevented at the farm level.

### FOREIGN OBJECTS CONTAMINATION

Foreign objects may enter beef products during livestock processing, accidents, neglect, and poor management. Buck-shot, injection needles, implant needles, scalpel blades, tranquilizer darts, archery broad heads, .22 caliber and other bullets have been found inside meat during processing and consumption (Figure 1, 2 and 3). Buck-shot, bullets and archery broadheads can enter the animal from hunters or from cowboys who use pistols loaded with buck-shot to round up wild cattle in rough country. Accidents, such as breaking a needle while vaccinating livestock may also occur. Needle shafts which have been bent and then restraigthed are significantly weaker and break easily. It is important to discard bent needles.

The larger meat processing facilities have metal detectors to detect and prevent



Figure 1. A tranquilizer dart found imbedded next to the pelvis. Apparently, the animal was shot through the rectum.



Figure 2. Four .22 cal. bullets, a broken scalpel, buckshot, an implant needle and an unidentified object. All objects were recovered from beef carcasses during processing.



Figure 3. Two injection needles found in beef carcasses.

larger objects from reaching consumers. However, small objects, such as buckshot, or nonmetallic objects are difficult to detect and may not be identified at the facility.

Although it is of very low incidence, foreign object contamination must be eliminated and that can only be done by prevention. Visit with your veterinarian ahead of time about how to handle the situation in which a needle would break off in a muscle.

Broken needles migrate in muscle tissue, with its movement, and if not removed immediately, the broken needle will be almost impossible to find in the live animal. This would require that the animal be removed from the regular market channels and slaughtered at a facility where instructions could be given for a large mass of meat around the injection site be condemned and not used for consumption. Animals with broken needles in them must not be sent in regular market channels.

## **BEST MANAGEMENT PRACTICES**

Do not use buckshot to round-up livestock.

Do not market any animal in the regular market channels that has a known foreign object imbedded in the animal.

Mark the site on the hide by clipping a small area of hair and have a veterinarian remove foreign objects immediately, if it is possible to find them.

Only allow responsible hunters on your property and ensure they will not be hunting around livestock.

Purchase and use needles that are of adequate size and quality to avoid breakage but not larger than necessary to complete the injection. Don't re-straighten and/or use a needle that has been bent. Use SubQ injections whenever possible and then a broken needle would be removed with the hide.

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