Injection-site lesions should be a major product-quality concern for all beef and dairy producers, especially when it comes to their cull cows and bulls, commonly referred to as “non-fed cattle.”

Among non-fed carcasses, the problem is especially prevalent in the round, where many injections occur. Rounds from cows and bulls are economically important, because they are commonly processed and marketed as whole muscle products, not as ground beef. Lesions not found through normal fabrication procedures may not be discovered except by end-product users or consumers.

When injection-site defects occur, meat processors must trim and discard the damaged tissue. This greatly reduces the marketability and economic value of the round.

To determine the extent of the problem, NCBA’s Quality Assurance Advisory Board recently requested Colorado State University to conduct audits in seven different packing plants in all regions of the country. CSU researchers obtained untrimmed rounds from each plant. A total of 679 rounds, about half of which came from beef cows and half from dairy cows, were sampled.

The researchers then evaluated these cuts, using a “slice audit” technique, to quantify the number and location of injection-site lesions in each piece. The slice audit allows researchers to identify essentially all of the injection-site lesions in the muscle. It’s a much more comprehensive process than methodology used in previous audits. In addition, researchers divided the round into four quadrants: Q1, near the hock, through Q4, at the upper end of the round, near the backbone and including the cap muscle of the top sirloin.

Researchers found an alarming statistic in dairy cow carcasses. More than half, or 58%, of the rounds from dairy carcasses had at least one injection-site lesion. The majority of these were in the back of the leg or in the lower quadrants. This was expected, because most injections for dairy cattle are given while the animals are in headgates/stanchions, and the rear of the animal is accessible. The incidence in beef cows was somewhat lower.

Injection-site defects are a serious product-quality problem that all cattle producers need to be concerned about—because a significant amount of the beef produced in this country comes from culled beef and dairy cows. Producers can reduce the occurrence of injection-site defects by following simple, quality assurance steps when treating cattle. By doing so, we will improve the quality of beef for consumers.
7 steps to improved injection-site quality control

1. Administer all injectable products in the neck or shoulder region of your cattle, not in the round. By doing so, you can help prevent defects from occurring.

2. Follow instructions. Make sure you read the label and labeling information before administering any animal health product.

3. Avoid IM injections whenever other labeled routes of administration are available.

4. Products approved for subcutaneous injections should be administered using the tenting technique. Clasp the animals hide between your fingers and lift, then inject the product into the ‘tent.’

5. Never mix products. Mixing products can cause unnecessary tissue damage, and may reduce the efficacy of the products administered and extend withdrawal period.

6. Ask your suppliers to provide you and/or your veterinarian with sufficient documentation that shows that their injectable animal-health product does not cause tissue damage.

7. Encourage biological and pharmaceutical manufacturers to provide tissue reaction information on all injectable, animal-health products.

For more information about injection-site quality control, contact your state or regional quality assurance coordinator, or National Cattlemen’s Beef Association
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