WASHINGTON STATE UNIVERSITY
EXTENSION

BOVINE RESPIRATORY DISEASE RISK REDUCTION

BY THE NUMBERS

- Total meetings and presentations of curriculum: 7.
- Total attendance at meetings: 165.
- Total on-farm assessments: 14
- Average proportion of calf Bovine Respiratory Disease for the 14 herds: 8.3%.
- Range of Bovine Respiratory Disease calf incidence for the 14 herds: 0-80%.

2014

ISSUE

Bovine Respiratory Disease (BRD) is the leading cause of death loss in beef cattle; the USDA reported that 40% of pre-weaning losses in cow-calf herds were due to respiratory disease. BRD occurs in an estimated 12% of calves, and if calves develop pneumonia, weight gain is affected, mortality may occur, or treatment costs could negatively affect producer profitability. Calf health may be influenced by factors affecting exposure to pathogens and poor immunity.

The WSU Beef Team conducted a needs assessment focus group at the 2010 Washington Cattlemen's Association meeting that identified health risk reduction as a high priority. This project addresses the regional priority concerning managing disease risks. While cattleman know about reducing disease risks on the ranch, newer information on how cow nutrition affects the unborn calf and how calving conditions can influence calf health and survival has not yet entered the cattleman's vocabulary, nor has it become integrated into management practices in many operations.

RESPONSE

Workshops were delivered with an evidence-based curriculum and in-class assignments to educate producers on risks and general recommendations to reduce BRD incidence in the cow-calf herd. At each workshop, producers completed a self-assessment of their ranch's BRD risks, received notebooks with 11 educational modules, interacted with Extension professionals, and were encouraged to request an on-farm BRD risk assessment by team members.

Workshop attendees were surveyed to determine their risk of BRD. Results from the 93 self-assessments collected show that there was an average of 10 common risky practices that the producers performed, with more than half of the producers having greater than 10 risky practices. The most frequent risky practices reported include: not testing cattle to evaluate trace mineral status such as copper or selenium (72 producers); bringing in new cattle (cows, bulls, replacement heifers, or feeders) to their premises, or not knowing if they do (71 producers); not separating cow/calf pairs from those yet to calve (61 producers); not using nutrient-requirement tables to determine how much energy and protein they need, or not knowing if they use them (57 producers); and unknown BVD-PI status of their herd (55 producers). These are considered among the riskiest practices for exposing BRD to, or spreading it within, a herd.

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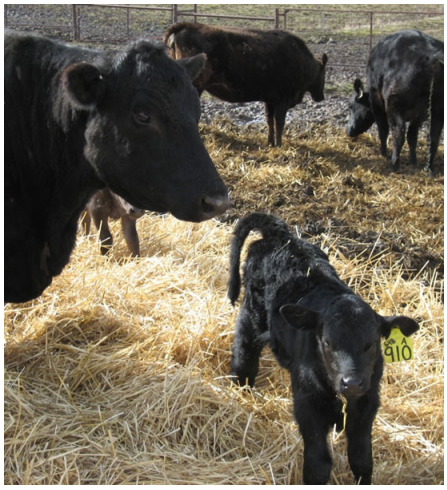
QUOTES

"You've given us a lot to take back to the ranch."

"We feel that these Extension projects where we have face-to-face interactions with experts are very beneficial."

GRANTS & DONORS

The WSU Beef Team received a sub-contract of the USDA National Institute of Food and Agriculture Coordinated Agricultural Project grant, "An Integrated Approach to Control Bovine Respiratory Diseases," to develop an educational outreach component. In addition, the WSU Beef Team secured a grant from the Western Center for Risk Management Education for delivery and evaluation of this curriculum and on-farm assessments of BRD risk.



Educational topics in the workshops address the top 10 riskiest practices and include managing pregnant cows, optimizing calf care, understanding weaning procedures and cattle handling, vaccinations, safe transportation, biosecurity, pre-conditioning, and documenting BRD incidence and health costs.

Additional outreach included creation of the project's website, an online assessment form, and articles in trade magazines, Extension newsletters, and other Extension publications. WSU Beef Team members conducted objective assessments of BRD risks on 14 ranches for interested producers. During the assessments, one or more ranch-specific recommendations - based on identified risks and the economic costs and benefits of implementing recommendations - were discussed.

IMPACTS

Cow-calf producers now have a way to identify their ranch's risks for BRD and find solutions to reduce those risks. Participating producers also have access to follow-up support, which allows them to ask questions and make wise decisions, evaluate their economic situations using a standardized performance analysis, and implement relevant changes.

Single point pre- and post-program evaluations documented significant gains in knowledge in the 11 topic areas of the workshop curriculum. The areas of highest risk showed the following increases in knowledge:

- biosecurity – 81%;
- vaccination – 75%; and
- weaning management – 7%.

The project's first phase was evaluated by each producer's new knowledge and their intent to change.