Reporting Abnormal Calves – Fawn Calf Syndrome

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As we continue our work to characterize and head off emerging problems, we are also carefully monitoring a non-lethal condition referred to as fawn calf syndrome (FCS). Calves suspected to have FCS have been reported in Angus calves in Australia for many years and researchers there have identified the condition as an inherited trait allegedly tracing to U.S. sires. If the Australian hypothesis is correct, and there is strong evidence that it is, there are almost certainly cases unintentionally not being reported in the United States. FCS calves are normally born alive and most can walk, suckle and survive. The birth weight of FCS calves is normal. The phenotype is subtle and hence FCS may not initially be recognized as an inherited defect (Figures 1 and 2). Contractures which reduce the range of angular movement of the upper limb joints are present at birth in FCS but are much less severe, without rigid joint contractures. Due to these contractures, FCS calves at birth assume an abnormal crouched posture, resembling an elk or deer fawn, with the feet placed more to the rear that normal, hocks pulled up and back and the spine slightly arched. In their first days of life, FCS calves are also flat down on their pasterns. Although there is a reduced range of movement ("contracture") in the upper limb joints, particularly the hip, stifle and hock, there is an increased extensibility of the lower limb joints, particularly the pasterns. FCS affected calves are reported as taller and more slender, than their unaffected siblings.

Australian researchers assert that the inability to passively extend the hip, stifle and hock joints to the normal extent by pulling downwards on the foot of a newborn calf -- while it is held on its side on the ground -- is a valuable diagnostic sign in FCS cases.

Affected calves can show significant recovery and usually appear relatively normal by 4 to 6 months of age. As weanlings and yearlings, the FCS calves appear lighter framed and lighter muscled, particularly in the hindquarters. Most perform poorly and remain tall, slender animals with poor foot conformation. The more normal appearance of FCS cases as mature adults makes early evaluation of the phenotype essential. Australian researchers have also reported the early onset of degenerative arthritis in cows that were FCS-affected as calves, particularly in the stifle joints. Figures 1 and 2 are images of FCS calves.

Reporting Calves. To further the research on these conditions, we urge you to report any FCS cases immediately when they are detected so that we might obtain calves for study. Calves can be reported to Don Laughlin (dlaughlin@angus.org 816-383-5140) at the American Angus Association who will make arrangements for them to be shipped to Dr. David Steffen at the University of Nebraska for examination. DNA samples of the affected calves should go to Dr. Jon Beever at the University of Illinois.

Figure 1. Fawn Calf Syndrome (FCS) Calf

Figure 2. Fawn Calf Syndrome (FCS) Calf