

## The reports of questionnaire about the diagnosis and prevention of Weak Calf Syndrome in calves

2014. *Journal of Farm Animal in Infectious Disease* 3(3): 89-96.

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### Abstract

A questionnaire survey aiming to elucidate the perception among veterinarians on the association between diarrhea in calves and Weak Calf Syndrome (WCS) was conducted in Japan, and 248 veterinarians in 39 prefectures answered the questionnaire. Among the respondents, 85.5% belonged to NOSAI (Farmers' Mutual Aid Association), 3.2% were independent veterinarians, 5.2% were herd management service veterinarians, and 6.5% answered others. Male were 83.5%, and female 16.5%. Questionnaire covered reasons of WCS, diagnosis and prevention, characteristics of well-managed farms with fewer cases of diarrhea, and collection of information on calf diarrhea.

Regarding the contribution of WCS on diarrhea, 77.8% answered that the contribution is large or non-negligible, and 56.3% answered that the proportion of diarrhea with WCS is less than 5%, and 22.1% answered that the proportion is more than 10%. According to the cattle breeds which the veterinarian deals with mainly, the proportion of answering that WCS affects diarrhea greatly or non-negligibly was significantly higher among those who deal with Holstein (Hol, 64/92, 69.5%) breed than Japanese Black (JB, 91/110, 82.7%,  $\chi^2 = 4.2$ ,  $df = 1$ ,  $p = 0.04$ ).

The most common two answers for the cause of WCS were pedigree and nutritional status at the late stage of pregnancy, and especially veterinarians of 40s and 50s age raised pedigree. Nutrition status at fetus stage, and history of colostrum feeding were second and third common answers. When the respondents are stratified by main breeds dealing with, both groups dealing with Hol and JB prioritized pedigree and nutritional status at the late stage of pregnancy. However, Hol group tended to raise accidents at delivery and infection in fetus, while JB group pedigree and nutrition at fetus stage, in the second place.

Most common criterion of diagnosis with WCS was light body weight, and low vitality, weak suckling of colostrum followed, and as higher age, larger proportion answered light body weight.

Most common counter major against WCS was nutrition management around delivery, which accounted more than 50%, and selection of pedigree at insemination and colostrum management followed. Common answers as the second rank were suckling and environmental hygiene management after delivery.

Veterinarians chose hygiene, delivery - colostrum management, skill for observation, and feeding management commonly as characteristic of good practice farms with fewer diarrhea; however the proportions varied. For the same question, Hol group tended to answer delivery - colostrum management, while JB group feeding management. As shown above, the perception of WCS among veterinarians differed according to their age and the main cattle breeds dealing with.

Keywords: Questionnaire; Weak Calf Syndrome; Diarrhea