

Practical Use of Ammonia Treated Wheat Straw in Cattle Diet

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Summary

Aiming at the establishment of an organic combination system based on harmony with the environment, in which upland field farming and livestock farming are integrated, wheat straw, one of the local resources in upland farming areas, was set as the research object. Various kinds of tests on practical farm conditions were performed using a new straw ammonia treatment system named "Hokuno-S", in order to examine the effective use of straw by cattle.

In long-term feeding tests to cattle at the test farms, the ammonia treatment wheat straw (ATS) was used. As a result, abnormalities not only in breeding and raising results but also in blood ingredients

were not accepted.

Intake of ATS was lower than that of grass silage. However, if the Japanese Black breeding cows are fed ad lib., they may become overweight. Thus, a certain amount of ATS to the cows was effective in maintaining the good body condition score.

Fattening results of Japanese Black fed ATS were not lower compared with those fed timothy hay or corn silage as main roughage. And especially in the second half of fattening stage, the daily gain was higher.

Feeding ATS to dairy heifer is accepted. However, since the intake of ATS is low in milking cows, mixed ration of ATS and other feedstuffs needs to be examined.