Abstract 20:

Reinforcing resilience in broiler chickens by providing a moist, coproduct based diet

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It is known that providing broiler chickens with a moist diet, effects the uptake of nutrients, resulting in positive production parameters and morphology of the gastrointestinal tract (GIT). Such effect may also occur when broilers are provided with a diet containing a moist non-human edible coproduct. Increasing the usage of coproducts in broiler feed can reduce the pressure on the competition over agricultural land for either feed or food production.
A total of 382 male Ross 308 broilers were divided over 4 different treatments (T1 to T4), with 8 repetitions. T1 birds were fed a commercial dry pelleted feed (control), T2 and T3 birds were fed a moist diet, including 20% brewers spent grain (T2) or 20% wheat yeast concentrate (T3) and water, and T4 birds were fed a feed moisturized by adding water.
Body weight gain of the broilers who were fed the brewers spent grain diet (T2) was significantly higher than those fed the wheat yeast concentrate (+12.1%; $P< 0.0001$) or the moist mash diet (+7.43%; $P= 0.013$). The diet had no significant effect on the blood levels of NK-cells, B-cells and T-cells on day 7, 14 and 35. The villi length was found to be significantly longer for T2 compared to T1 on day 7 ($P=0.023$). On day 35 all treatment groups were found to significantly differ in villi length except between T1 and T3, both representing the shortest villi ($P<0.001$).
Providing broilers with a moist coproduct diet, is a sustainable and beneficial novel feeding strategy.