

ProDry AF

Wet litter is one of the largest problems in the poultry industry. Main factors affect the prevalence of wet litter are management and housing of birds, disease control, dietary factors and gut health. Wet litter problems result in large economical losses through reduced performance and health status and increased labour and heating costs as well as producer dissatisfaction and processing losses.

Provimi has developed a new product called **ProDry AF** (active fibres), which prevents wet litter problems. ProDry AF combines the positive effects of essential oils, additives and active fibres which improve digestibility, bind moisture and ammonia and consequently improve litter quality.

The product

The active fibres in ProDry AF stimulate gizzard development, which results in improved digestion and an antibacterial effect due to lower pH levels. The essential oils result in better gut health and improved digestion. The moisture and ammonia binding capacity of the components improve the quality of the litter and reduce the incidence of footpad burns.

Proven efficacy

To prove the effectiveness of ProDry AF a study was performed with Ross 308 male broilers. The study consisted of different treatments: control, active fibre, moisture binding components and a ProDry AF treatment, which is a combination of the previous two treatments. The diets were formulated to trigger wet litter problems.

The effects on litter quality and footpad scores are shown in Figures 1 and 2 respectively. These figures show that all components improve litter quality and footpad scores. However, the combination of the different components shows additional improvement compared to the separate components. Therefore Provimi advises ProDry AF.



Figure 1. The effect of dietary treatments on litter quality at day 33 of Ross 308 male broilers

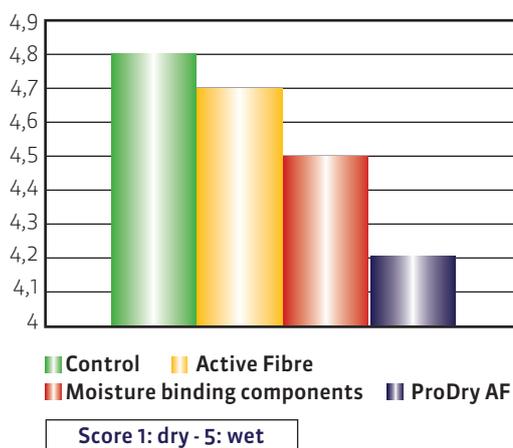
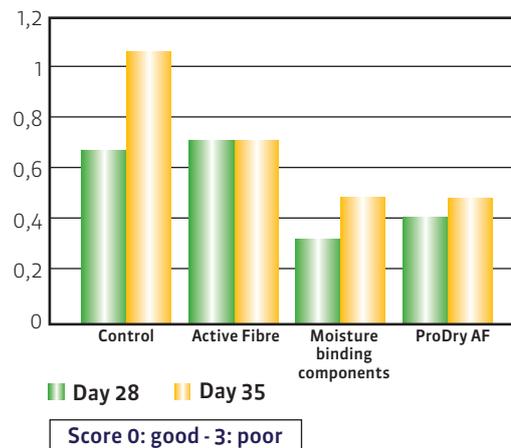


Figure 2. The effect of dietary treatments on footpad scores at day 28 and day 35 of Ross 308 male broilers



Technical broiler performance

Besides improvement in the litter quality, there is an improvement of FCR (Feed Conversion Ratio) and weight gain where dietary treatments were applied, as shown in Table 1. These improvements in technical results are likely to result from improved digestibility or fewer problems in maintaining body temperature because of the dryer litter.

Table 1. The effect of dietary treatments on corrected FCR and weight gain at day 35 of Ross 308 male broilers

	FCR Corrected ¹	FCR Difference	Weight Gain(g)	WG Difference (g)
Control	1.608 ^a		2169 ^b	
Active Fibre	1.513 ^{bc}	-0.095	2224 ^{ab}	+55
Moisture binding components	1.542 ^b	-0.066	2247 ^a	+78
ProDry AF	1.497 ^c	-0.111	2248 ^a	+79

¹)FCR corrected to 2212 g bodyweight at 35 days of age (=2169 g weight gain). Correction of -0.01 for each 25 g extra weight.
^{a,b,c}) Means within a column not sharing a common superscript differ significantly (P<0.05).

Conclusion

The results of this study show that ProDry AF is very effective in improving litter quality and consequently reduces the occurrence of footpad burns. Additionally, FCR and weight gain improve. This makes ProDry AF economically attractive as a means of improving both welfare and broiler performance. The separate components of ProDry also show beneficial effects, but the combination of all components leads to synergetic effects, especially in obtaining better litter quality and FCR.