Although the highly lignified arable farm by-products available in Kenya ranged in 1978 from 39 000 t for rice straw to 5 million t for bagasse, very little is used in livestock feed. Treatment of such by-products with NaOH, ammonia or a natural salt deposit called Magadi showed that their DMD could be improved significantly. Further trials comparing sorghum silage, ammonia-treated maize stover and Chloris gayana hay gave DM contents of 38-45%, 89% and 94.15%, resp., showing that a treated by-product can equal the nutritive value of a medium-quality hay.