

Does mixing cattle with broilers on pasture yield any benefits?*S. Hübner and K. Barth**Johann Heinrich von Thünen Institute, Institute of Organic Farming, Trenthorst 32, 23847 Westerau, Germany;
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Combining poultry production with grazing of other species might offer several advantages: Farmers could benefit from having another option for using their grassland while challenges like parasitic load and predation might possibly be tackled more efficiently. We aimed to explore potential benefits and challenges arising from the combination of young cattle and broilers in a pasture-based production system, i.e. does keeping young cattle and broilers together affect the ranging behaviour of broilers and does it lower the losses in broilers due to predators? In addition, we hypothesized that cattle will benefit from this combination due to a lower parasitic burden. We used two systems in the following set-up: The first system consisted of one group of broilers (n=55-60, ISA JA 757) assigned to the same pasture as ten young cattle (German Holstein, 10-13 months of age). In the second system the same number of broilers had access to a pasture that had been grazed by ten young cattle two weeks before. Both systems were embedded in a rotational grazing system with access to a new paddock every week. After six weeks each experimental round concluded with the slaughter of the broilers. Behavioural observations were conducted twice per week in both systems parallelly. Faeces of the cattle were sampled every two weeks. In total, seven replicates are going to be conducted from 2018-2021. So far, each round showed lower losses of broilers (median, minimum – maximum) in the system where broilers and cattle had access to the same pasture (1; 0-3) compared to the separated grazing system (4; 2-5). Furthermore, the proportion of broilers ranging the pasture during observation periods was higher in the combined system (mean \pm SD: 20.72 \pm 13.81 vs 14.87 \pm 9.72%/h). However, no broilers were seen to scratch at the cattle dung pats, and parasitic egg counts in faeces of cattle did not differ between the systems. These preliminary results indicate that cattle might provide protection to broilers, while the presence of broilers has no effect on infections by intestine parasites in cattle.