

Including trees in pasture-based pig systems to improve animal welfare and eco-efficiency*M. Jakobsen and A.G. Kongsted**Aarhus University, Agroecology, Blichers Allé 20, 8830, Denmark; malene.jakobsen@agro.au.dk*

In many ways free-range pig production allows the animal to express a wide range of behavioural patterns. However, there are some serious challenges related to animal welfare as well as negative environmental side effects in the current pasture-based systems practiced in Northern Europe. In some countries, sows are snout-ringed, which prevents rooting. This reduces damage of plant cover and consequently the risk of nutrient leaching is decreased. Snout-ringing is problematic as rooting is the preferred explorative behavior of the pig and often referred to as a behavioural need. From practical farming there are reports of high incidences of sunburn in hot seasons. Introduction of trees in pasture-based systems may be one way to reduce these challenges. The overall idea is that trees in a pasture-based system will provide a more natural and stimuli-rich environment for the pig with possibilities to seek shadow in hot periods and shelter during cold periods. Furthermore, the system may lead to reduced snout-ringing due to uptake of nutrients from the trees independent of grass cover. Finally, introduction of trees is expected to improve the overall eco-efficiency of the systems. Behaviour, activity level, location and incidences of sunburn were investigated in 84 lactating sows, housed in individual paddocks, subjected to one of three treatments; (1) pasture + poplar trees and access to trees; (2) pasture + trees but no access to trees; and (3) no trees (control). Preliminary results indicate that on average, the sows rested 57% of the total observation time. Of the total time spent resting, on average, 13% was taking place in the area with trees but with large variation between cold (1-6%) and hot seasons (18-24%). Inclusion of trees in pasture-based systems is suggested to benefit the welfare of sows during hot seasons.