

Nutritive value of arborescent alfalfa and immature rye in free-ranged organic growing rabbitJ.P. Goby¹, C. Bannelier², O. Faillat² and T. Gidenne²¹University of Perpignan, IUT applied agronomy, IUT, 66962 Perpignan, France, ²INRAE Occitanie Toulouse, GenPhySE, BP 52627, 31326 Castanet-Tolosan, France; thierry.gidenne@inrae.fr

Free-ranged organic rabbit meets the consumer's demand of outdoor rabbit farming and improved animal welfare, but lacks in technical references and nutritive value of forages available at farm. We thus studied the nutritive value of two feeds: arborescent alfalfa (*Medicago arborea*) 'AA' and immature rye 'IR' (herbaceous stage), in comparison to a pelleted feed 'P' for 5 groups of 5 growing rabbits (74 days old, mean live weight=1,802 g) housed individually in movable cages on pasture and following organic regulation for rabbit farming. Each cage had a shelter of 0.4 m² and a pasturing surface of 1.2 m². The groups were: group P fed a pelleted feed only, AA fed only with arborescent alfalfa (400 g fresh per day), AA+P was fed with alfalfa (200 g fresh/d+ 60 g/d of pellets), IR fed only with immature rye (500 g fresh per day), IR+P fed 400 g fresh/d rye + 60 g/d of pellets. After one week of adaptation to movable cage and feeds (74-81 d old), the digestibility was measured for four days, with feed intake and faecal total collection measurement (a board was installed on the cage floor to collect the faeces). During digestibility period, the dry matter (DM) intake of AA and IR fed alone averaged respectively 88.6 and 56.3 g/d per rabbit, corresponding resp. to a daily fresh intake of 239 and 378 g/d. Pellet intake of the P group averaged 121 g DM/d, while in IR+P group the IR intake averaged 34.0 g DM/d and in AA+P group the AA intake averaged 47.1 g DM/d. The AA contained 134 g/kg of crude protein for 291 g ADF/kg, while IR contained 289 g/kg of crude protein for 215 g ADF/kg. Digestible protein and energy content were 37 g PD/kg fresh and 4.68 MJ DE/kg for AA (fed alone), and 31 g PD/kg and 1.34 MJ DE/kg fresh for IR (fed alone). When the AA and IR were fed freely and complemented by 60 g/d of pellets (groups AA+P, IR+P), the DM digestibility was reduced proportionally to the pellet intake, and averaged 55.4 and 56.8%, similar to that recalculated from IR and AA groups. Thus, mixing forages (AA or IR) with pelleted feed did not alter the nutritive value of the forages.

Silage juice in diets to weaner pigs and pregnant sowsM. Presto Åkerfeldt¹, J. Friman¹, F. Dahlström², A. Larsen² and A. Wallenbeck²¹SLU, Animal Nutrition and Management, Box 7024, 75007, Sweden, ²SLU, Animal Environment and Health, Box 234, 53223 Skara, Sweden; madalena.akerfeldt@slu.se

Liquid fractions from green bio-refinery contains nutrients with high availability for pigs and have potential as a local feed resource in liquid feeding to pigs. The objective of this study was to evaluate the applicability of silage juice in liquid diets to weaner pigs and dry sows and its' effects on production and health. In total, 96 weaner pigs (LY×H) and 24 sows (LY) from four and three batches in an organic pig production system, respectively, were included. During the weaning period (six wk. age-delivery to fattening unit) and pregnancy (six wk. after insemination-one wk. prior to farrowing) weaners and sows were allocated to either a control diet (C) or an experimental diet with silage juice (SJ). The C-diet consisted of a commercial feed for growing pigs and dry sows, respectively, mixed with water prior to feeding. The SJ-diet consisted of a lower ration of the same commercial feed as in the C-diet but mixed with SJ instead of water, theoretically replacing 10% (weaners) or 15% (dry sows) of the crude protein content. In weaners, growth, cleanliness of the pens and pigs and clinical health indicators was registered, while sow weight during pregnancy and litter characteristics at farrowing were registered in the sows. Weaners fed the SJ and C-diets had similar growth (16.0 and 15.9 kg, respectively) and feed conversion ratio based on the commercial feed. Pigs fed the SJ-diet were dirtier on their back and head than pigs fed the C-diet (P<0.001), but cleanliness in the rectum area and in the pen did not differ. Very preliminary results show that sows fed the SJ-diet had a higher body weight during pregnancy than sows fed the C-diet although their growth development was similar. Also, higher number of total born (19.3 vs 15.8), live born (16.8 vs 15.0)/litter and the litter weight at birth (27.4 vs 23.7 kg) was found in the SJ compared to the C sows, resulting in a higher share of dead born piglets in SJ sows. This study concludes that silage juice can contribute with nutrients in liquid diets but possible effects on reproduction calls for an awareness. More studies on nutrient digestibility and potential biological effects on sow reproduction is needed.