

The potential of willow silage as forage for lactating Awassi ewes and their nursing lambs

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Introduction

The high cost of feeds is one of the major obstacles facing the livestock sector in the world, as well as in Jordan. Large number of sheep farmers sold their animals as a result of this problem. Furthermore, low milk production per unit increases the effect of high feed cost. As well, to increase farmer profitability, it's important to reduce feed costs and increase animal production.

Willow silage is been used recently in small ruminant diets as a source of forage. Its newly introduced as non-conventional fresh forages with high protein contents (9.5% as DM basis).



The Objective

to evaluate the potential of willow silage as a forage source for lactating Awassi ewes and their nursing lambs.

Materials and Methods

21 Awassi ewes and their lambs were randomly assigned to one of the two dietary treatments;

- Control group (Cont; $n = 11$) were ewes fed wheat straw
- Willow silage group (WS; $n = 10$) were ewes fed willow silage as a source of forage of the diets.

⇒ Lactating ewes were fed high concentrate diet *ad libitum* for 12 weeks of lactation.

⇒ Milk yield and milk component were measured bi-weekly.

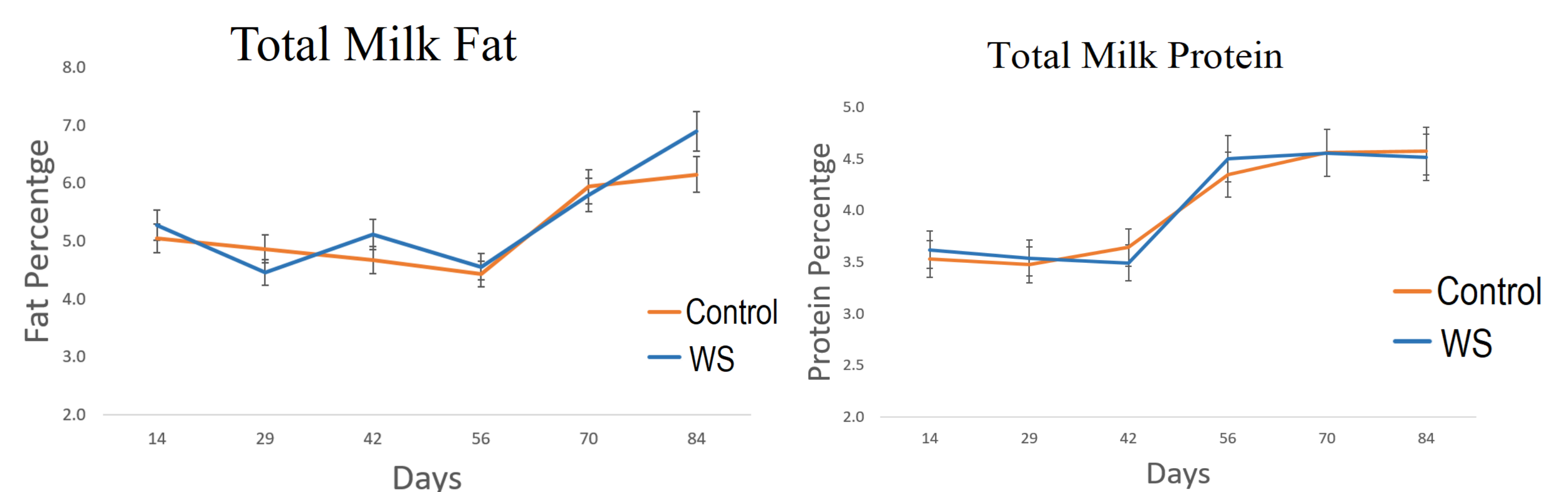
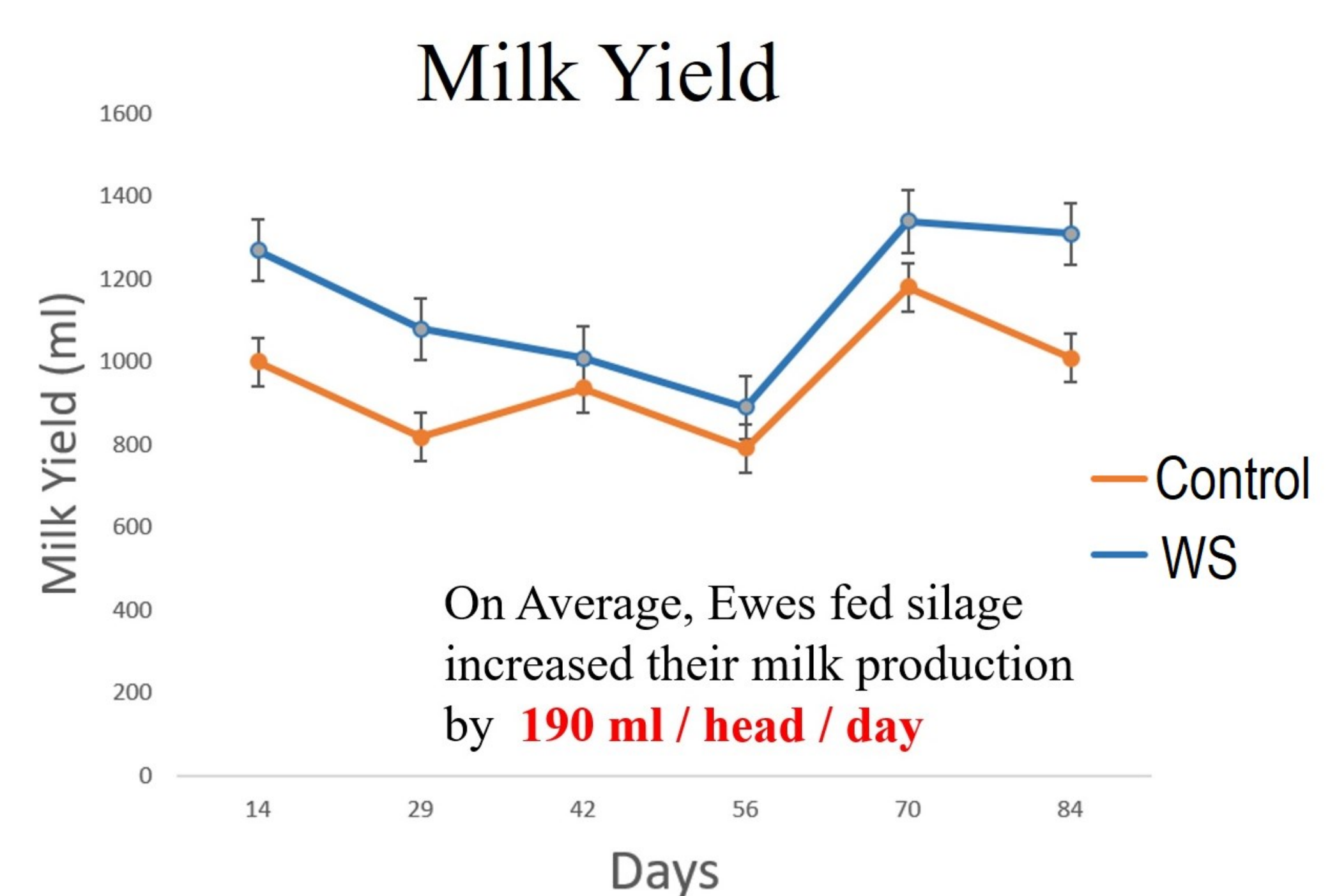
⇒ Final body weight for ewes were measure at the end of experiment.

⇒ Weaning weight for lambs were measured at 60 days of age.



Results

- No differences in final body weight (BW) & body condition score (BCS) of ewes between two groups.
- Lambs nursing from ewes in WS group had higher but not significant weaning BW and Average BW gain than control.
- Ewes fed the willow silage diet had higher ($P < 0.05$) milk production than ewes fed control diets (1150 vs 956 ml milk per day for WS and Control, respectively) with no differences among treatment groups in total solids, fat and protein content.
- Cost/kg milk production (US\$) was higher ($P < 0.05$) in control group compared with WS group.



Conclusions

In conclusion, using willow silage in nursing ewe's diets will increase milk production, improve growth performance of nursing lambs and reduce cost of milk production, which demonstrate a potential to use as a forage source for ewes and their nursing lambs.