

Skills development in supplementary feeding for small ruminants

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Key research activities

- A feed and health intervention program is being implemented on-farm to test the effect of supplemental feeding and veterinary health services on small ruminant productivity.
- The capacities of 39 small ruminant farmers were built on supplementary feed formulation using agro-industrial by products, as part of the intervention. This activity is an anticipated sustainability measure which will lead to continued formulation of supplementary feed for small ruminants by the farmers when the project period has elapsed.

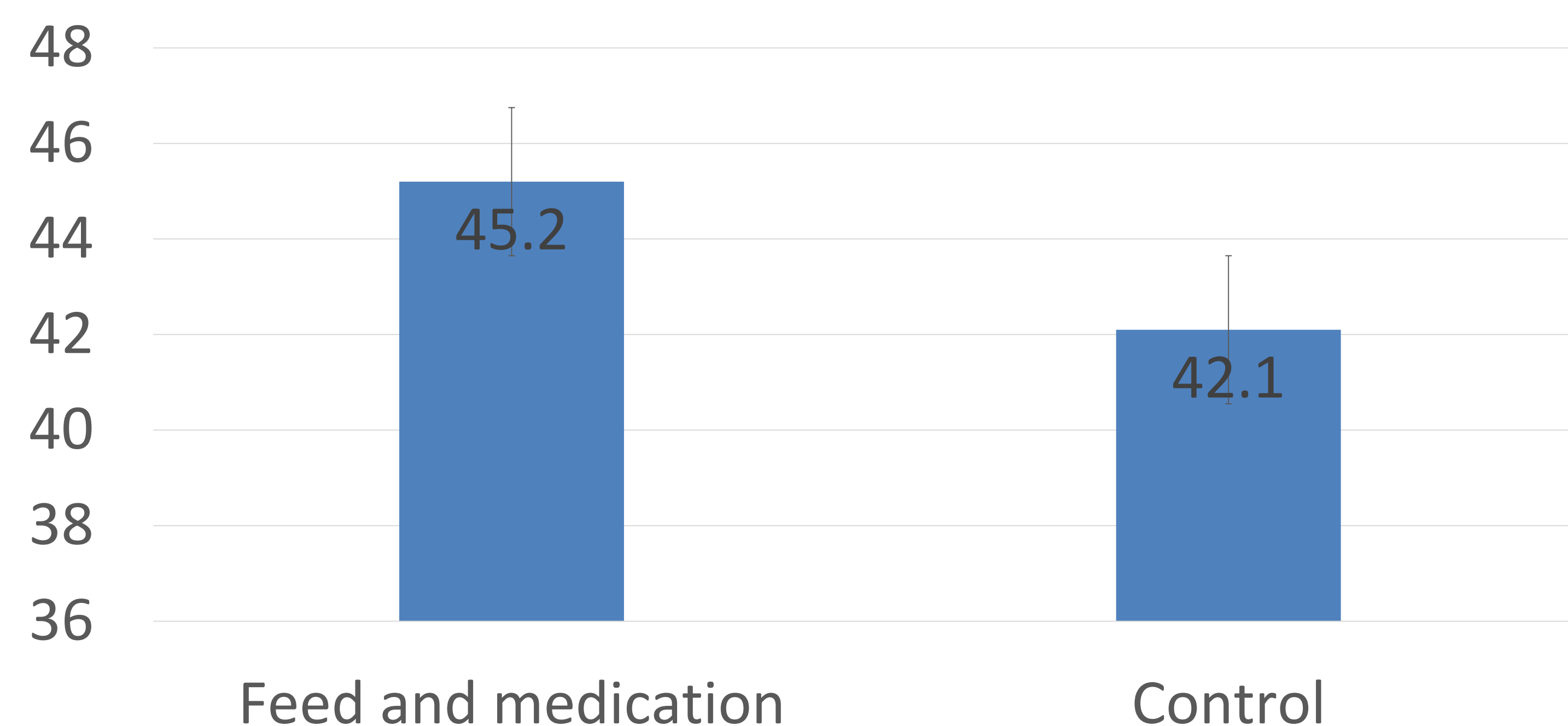
Results and main findings

- Data from on-farm feeding trials show that supplementary feeding improves growth (Figures 1) and reproductive performance of small ruminants.
- The project farmers acknowledge the effect supplemental feeding has on the performance of small ruminants and have learnt the skills necessary to formulate nutritious feed based on agro-industrial by-products for their animals. They have since produced more than 32 tons of feed on their own for their small ruminants.

Implications of the research for generating development outcomes

- The recommended supplementary feed has been demonstrated to improve reproductive performance. Farmers could therefore use targeted feeding of productive animals (pregnant and lactating animals) to improve birth rates among small ruminants. This would ensure a supply of replacement animals and excess for sale.
- Supplementary feeding has also been well-received by livestock traders who fatten rams for the niche Islamic festivities market. Farmers could therefore target this market by strategically feeding young rams to attract premium prices during Islamic festivities.
- A corollary to the uptake of this technology is the strengthening of the market for agro-industrial by-products as farmers demand for them as feed ingredients increases.

Average daily gain



How this work would continue in Africa RISING phase 2

- A broader audience of farmers should be targeted under phase 2 to develop their skills on feed formulation.
- A manual for feed formulation should be produced to serve as a guide for farmers.
- Further screening of other, locally-available ingredients that will further reduce the cost of the supplementary feed should be the focus of future investigations.
- The use of the concentrate supplemental feed in association with crop residue has not been the subject of an investigation yet. Such an investigation will be welcome as far as integrating livestock crops is concerned.

Current partnerships and future engagements for out scaling

- CSIR-Animal Research Institute is currently implementing the feed and health intervention activities under contract from International Livestock Research Institute (ILRI). The Veterinary Services Department, Ghana, will be engaged to provide vaccination services to farmers in future.