

Price and Quality of Legumes in Fodder Markets of Northern Nigeria

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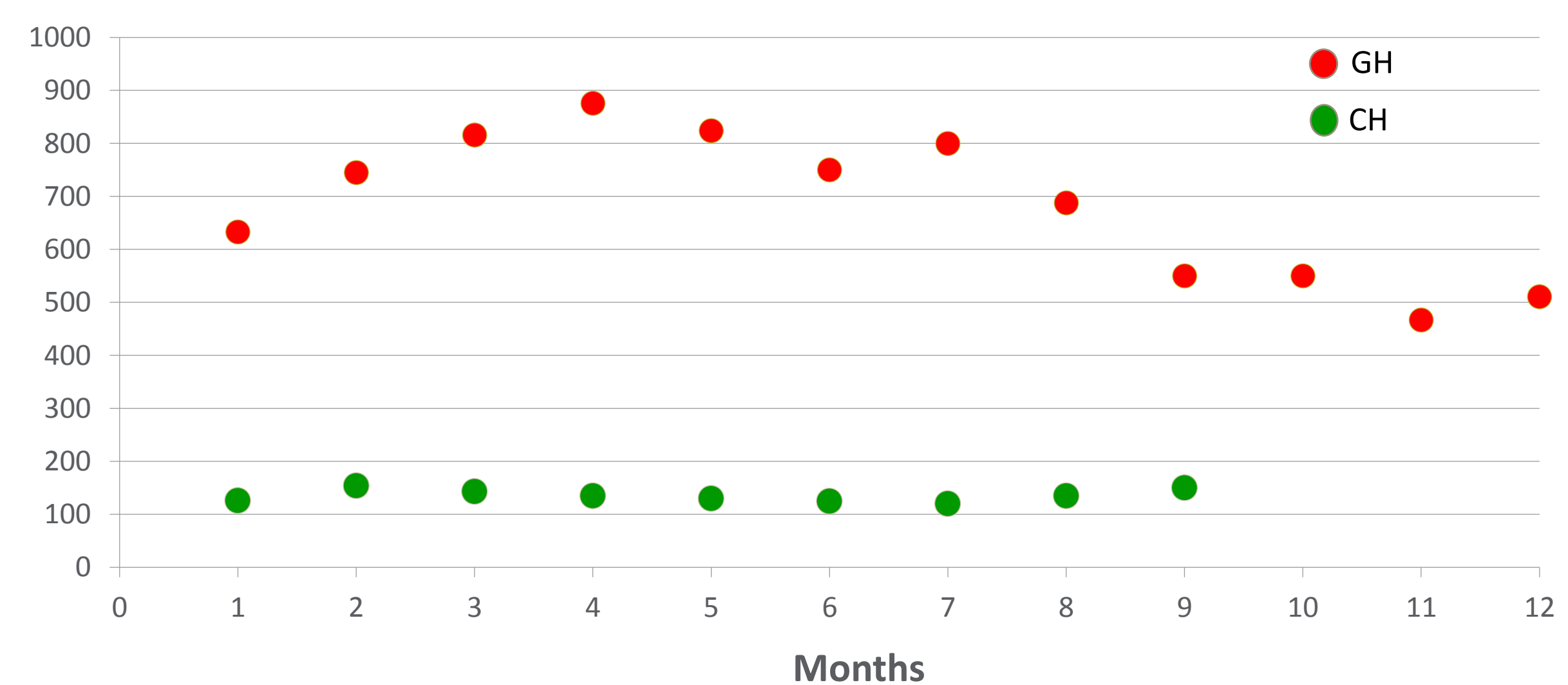
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INTRODUCTION

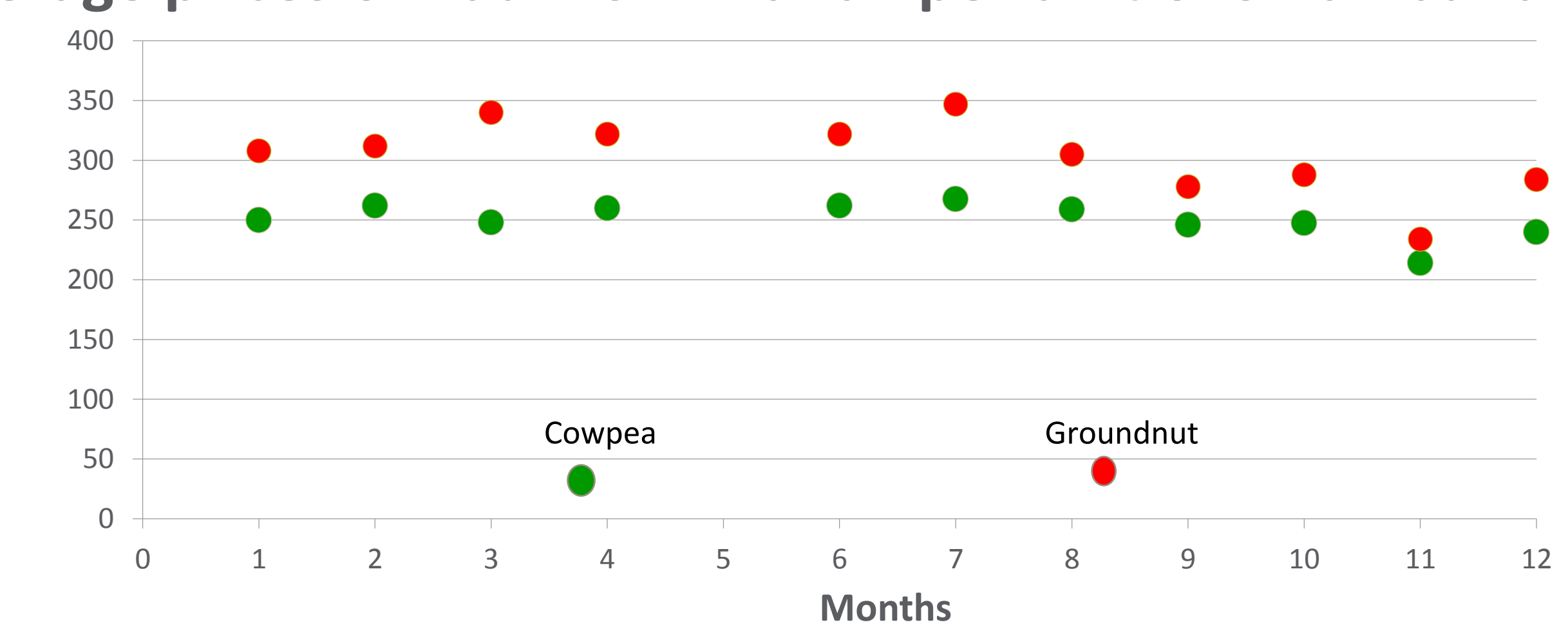
Legume fodders play a significant role in the nutrition of livestock throughout the Sudano-Sahelian zone of Africa.

Quality of these fodders should be an important consideration of their value; however, other research in West Africa has reported limited relation between quality and market price.

We, therefore, collected data to evaluate factors that might determine legume fodder prices in northern Nigeria.



Average prices of haulms in Naira* per unit of small bundles

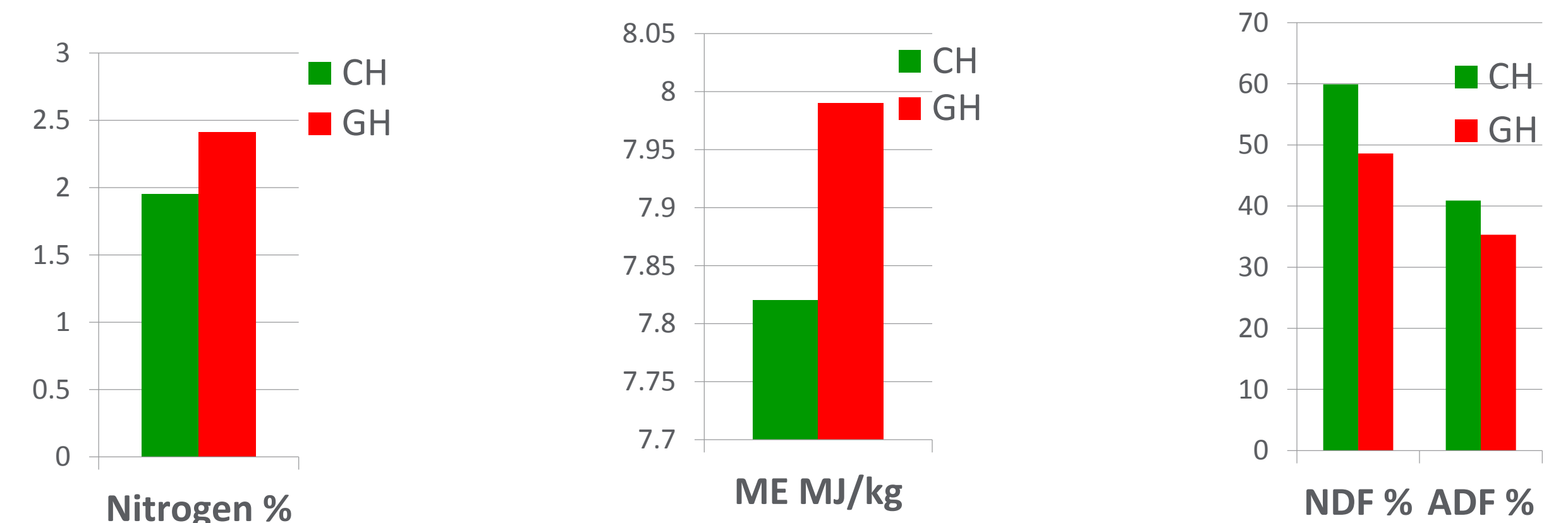


Average prices of legume grains in Naira* per kg

*(1 USD = 155 naira during the survey period)

Apparent higher quality of the GH was observed through visual grading primarily as 'green and leafy' compared to 'green and stemmy' for CH. Higher prices were also observed within haulm type to vary with visual score.

GH contained significantly lesser ($P < 0.01$) NDF and tended to contain greater ($P < 0.10$) N (49.3 and 2.4 g/kg DM, respectively) than CH (59.9 and 1.9 g/kg DM, respectively).



This was reflected in the higher prices for GH compared to CH. Contrary to previous reports, we observed GH to have higher quality than CH and this affected relative prices of those fodders in markets of northern Nigeria.

Other studies have reported higher prices for CH than GH elsewhere but interestingly it was found that the pricing was correlated with superior quality of CH over GH.

CONCLUSIONS

- Legume haulms are premium feed resources preferred by livestock farmers willing to pay higher prices for quality
- Quality of haulms was found to have a positive influence on the pricing
- Options to enhance the quantity and quality of haulms through breeding and agronomic practices needs to be exploited by the crop breeders and agronomists to bring in additional income to the legume farmers

METHODOLOGY

- Prices were recorded for groundnut (GH) and cowpea haulms (CH) at monthly intervals from five fodder markets in Northern Nigeria over a two year period
- Prices of cowpea and groundnuts were also recorded for to allow for a comparison of the prices of haulm *vis a vis* the grains.
- Legume haulms were visually scored by technicians by quality and described as one of the following:

Green and leafy	Green and stemmy
Very good	Sun damaged
Good	Rain damaged
- Dried legume haulms were sampled and ground through 1 mm mesh and analyzed by Near Infrared Spectroscopy (NIRS) for positive traits - crude protein (CP), *in vitro* digestibility (IVOMD) and metabolizable energy (ME) and negative traits - neutral (NDF) and acid (ADF) detergent fiber, acid (ADL) detergent lignin,

RESULTS

CH was only available in small-sized bundles and in only one market during the wet season, whereas GH was available throughout the year and was sold in small, medium, and large-sized bundles.

Small bundles of GH price varied from Naira 450 to 1400 with an average 616 while those for CH were lower, varying from 110 to 160 with an average of 140. Between grains Groundnut were priced always higher than the cowpea.

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