

## Introduction

Feed and Forage research and extension requires a wider range of feed quality information. Rapid and affordable feed quality assessments are needed.

## Methods/discussion

For mobile NIRS:

- Brimrose
- Phazir
- Tellspec
- Scio

Tested against FOSS XDS with 550 Ethiopian feed samples, 250 blind-predicted for N, NDF, ADF, ADL, IVOMD and ME

NIRS	R <sup>2</sup> Cup	R <sup>2</sup> Plastic Bag
FOSS XDS	0.97-0.99	0.87-0.98
Brimrose	0.62-0.85	0.48-0.88
Phazir	0.81-0.99	0.80-0.97
Tellspec	0.84-0.94	0.84-0.95
Scio	0.52-0.63	0.31-0.52

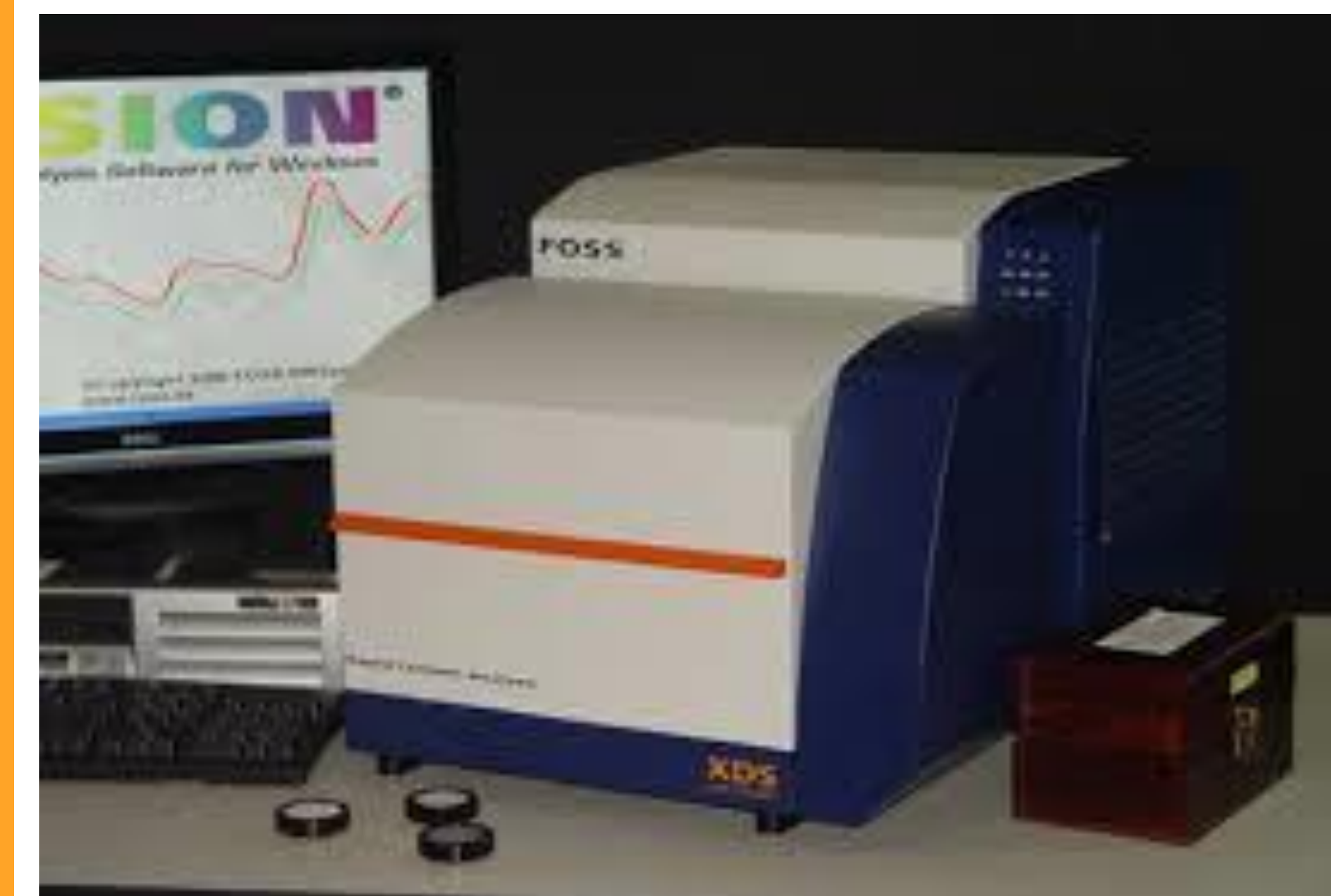
## Findings

- Some mobile such as Tellspec (< 1 000 US \$) close to FOSS XDS performance
- Brimrose and Phazir still > 40 000 US \$
- Scanning in plastic bags in the field possible

Feeds & Forages | Cluster 1

# Opportunities from mobile NIRS

Feed quality information are indispensable for least cost ration design, feed supply and demand scenarios, prediction of livestock performance and selection in crop and forage improvement programs. While these facts are accepted, feed quality information are often lacking because of logistical constraints such as sample preparation and sample shipment requirements, lack of analytical laboratory infrastructure and high cost of analytical services. Mobile, handheld and affordable NIRS instruments could overcome these constraints.



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