

Does groundnut haulm quality influence farmers' decisions on variety adoption? An explorative study from Odisha in Eastern India

Nils Teufel¹, Braja Swain² and Isabelle Baltenweck¹



Introduction

- ❖ Dual-purpose crops play an important role in mixed-farming systems and will continue to do so (Akplo et al., 2023; Blummel et al., 2021).
- ❖ Groundnut haulms are an important source of high-protein roughage for ruminants in low-rainfall areas, for instance, in West Africa (Samireddypalle et al., 2017) and South Asia (Birthal et al., 2011).
- ❖ From 2002, ILRI and ICRISAT started screening groundnut cultivars to identify those with superior nutritional haulm quality.
- ❖ A new groundnut variety namely ICGV-91114 was identified and released nation-wide in the year 2007 (ICRISAT, 2009).
- ❖ In 2010 ICGV-91114 was introduced in Odisha as “Devi” and promoted as the main official variety but feeding was not considered.
- ❖ The present study aimed at exploring the current practices in crop residue use, the impact of groundnut haulm quality on livestock feeding and the adoption of particular groundnut varieties.

Materials and methods

- ❖ In Odisha, 9 districts selected based on groundnut area and livestock population (Fig 1).
- ❖ Per district, 45 villages selected randomly, resulting in a sample of 405 villages.
- ❖ Collection of qualitative and quantitative data through focus group discussions and village-level survey.

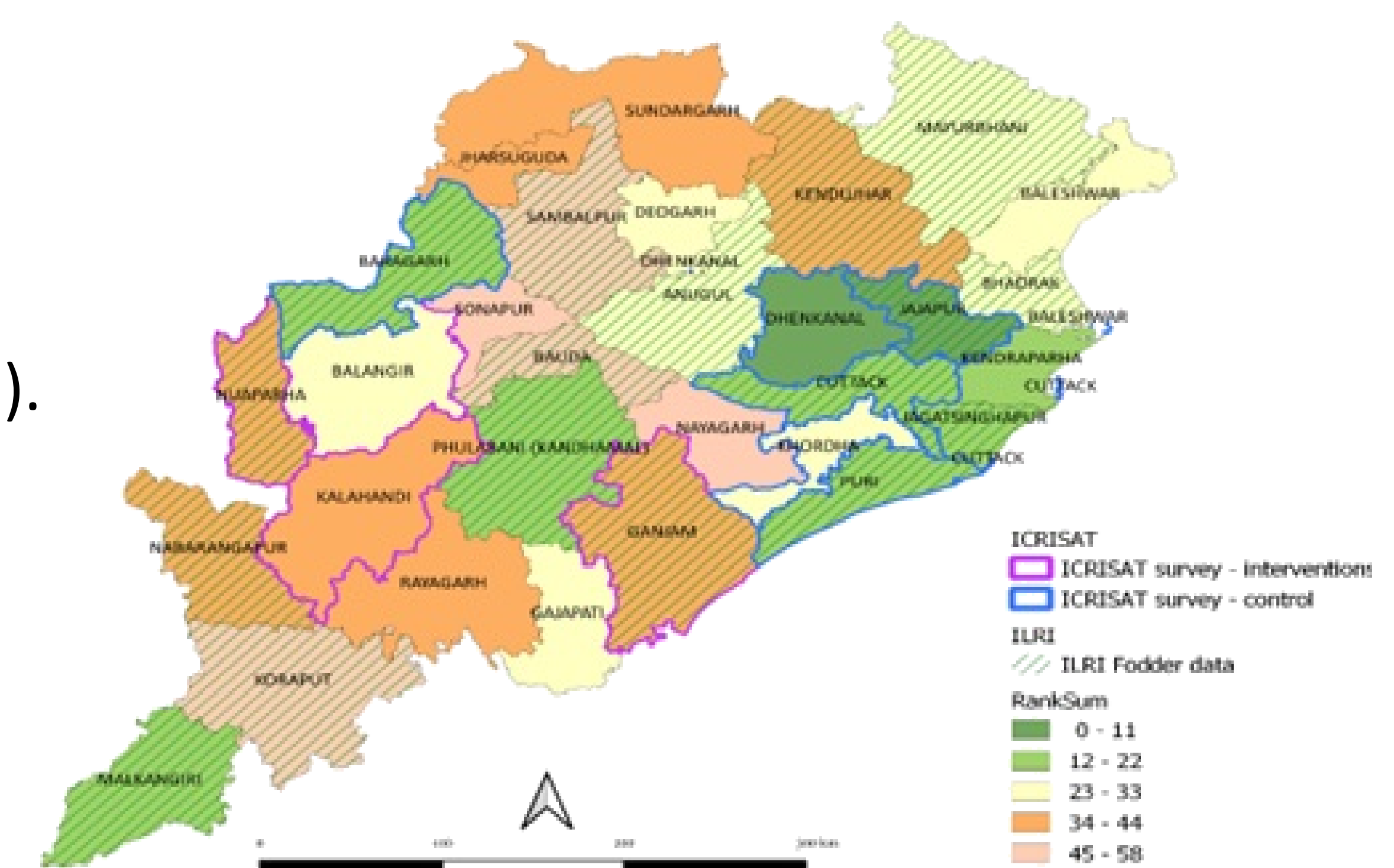


Figure 1: Survey site selection in Odisha state (India)

Results

- ❖ Groundnut haulms are mostly fed to livestock, a greater share than of other residues (Fig 2), they are especially popular as feed where cultivars with good nutritional haulm quality are grown (Fig 3).
- ❖ However, grain yield and seed availability remain the main criteria when farmers select varieties for planting; very few farmers give preference to haulm quality during the selection of varieties (Table 1).

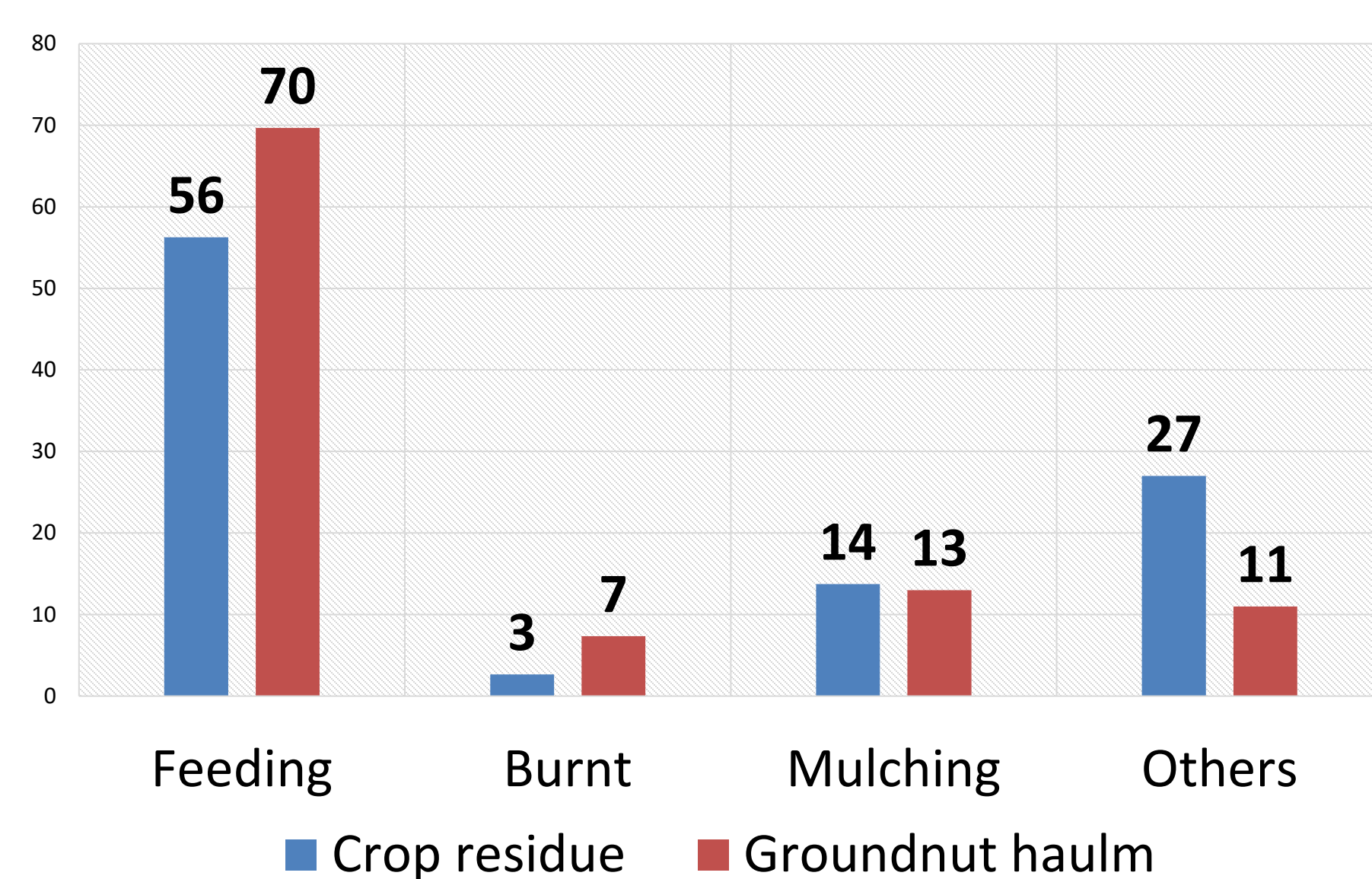


Figure 2: Crop residue utilization pattern (%)

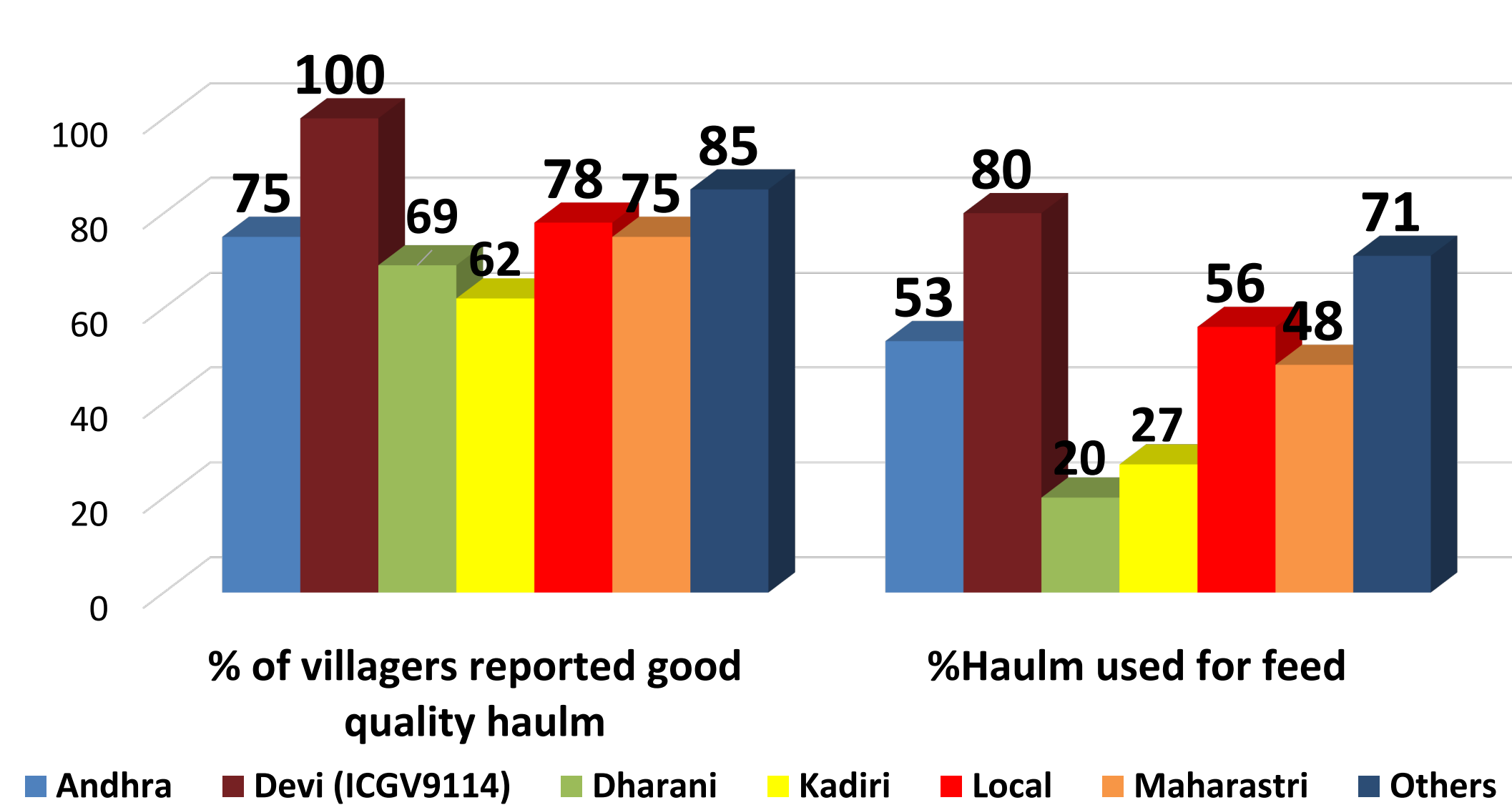


Figure 3: Groundnut varieties grown in Odisha - haulm quality & feed use

Variety name	grain yield	seed available on time	haulm quality	others
Andhra	62	13	0	25
Devi (ICGV9114)	76	0	10	14
Dharani	63	11	0	26
Kadiri	73	24	0	3
Local	65	12	3	20
Maharashtra	46	11	11	32
Others	67	12	0	21
Total	65	3	2	30

Table 1: Weights of criteria in farmers' groundnut variety selection

Research into use

- ❖ The preference for feeding high quality groundnut haulms shows that farmers consider nutritional quality of crop residues, although these traits have never been officially included in cultivar assessments and variety promotions.
- ❖ Bringing all stakeholders together will allow policies to be updated, so that nutritional qualities of residues can be considered during cultivar assessment, variety registration and variety promotion.
- ❖ This will result in broad-based benefits of growing improved dual-purpose crops.



References

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¹ International Livestock Research Institute, Nairobi, Kenya
² International Livestock Research Institute, New Delhi, India
 Email: b.swain@cgiar.org, n.teufel@cgiar.org

