Using local knowledge as a basis for planning ruminant diets in the mid hills of Nepal D. Subba¹, P. Thorne² and F.L. Sinclair³

The problem

Requirement to deliver information tailored to farmers' individual needs are not well catered for by conventional extension methodologies.

The solution

Tools that can generate extension material (Fig. 3) customised to specific sets of local circumstances (Fig. 2).

The mechanism

Software running on interpreted local knowledge of nutritive value, integrated with a biological model of animal nutrition (Fig. 1).

-								1
Fodder Tree Selectio	n and Use - Nepal							
1 🔊								
Selection Criteria			Rank Uses Curr	rent Selection R	ation Spe	pecies I	Descriptions Management Notes	
Site altitude (m.a.s.l.)	1500	2	Species Bato siris	Overall score		T	This page displays a list of possible species ranked according to how well each fits the selection criteria	
Soil colour	Black (kalo)	•	Rai Khanyu	60.5		ð	and the relative importance of the intended uses.	
Soil texture	Loam (dumuth, pango)	•	Sanopate Neba	ai 59.7		b	thigh score indicates a species that is more likely to be suited to the internded use.	
Aspect	Sunny	•	Khasre Khanyu	53.4	-	T	These score are percentages so suitability may be mited if the absolute score of a highly ranked species	
Month	February	⊡	Gogun	34.1		is	s low (< 40).	
	February		Bhimsenpati	33.8				
	April		Painyu	30.2				
	May		Lute Khanyu	27.7				2
	July		Chile Khanyu	19.5	-			
	August September	-	Amliso	6.45				

Figure 1. Selecting fodder trees for local circumstances

Acknowledgements:

This poster is an output of a research project funded by the United Kingdom Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID. R7637 Livestock Production Programme. Stirling Thorne Associates



the second s	
lank.Uses Current Selection Reton	Species Descriptions Management Notes
Ration	Tree fodder use
F Test 1	Feed Quently
Test2	Bedahar 2
	UThulopate Nebaro 2.5 💉
	Other heads
	Feed Ountity
	Mate gran 1
and a ball at a ball of a ball	Tenace grasses 3
Bodyweight (kg)	Target milk yield 0/dea/
	1.1
	23 itres / day
-	



Figure 2. Incorporating fodder from different species in a ration

Figure 3. Tailored extension output (also available in *Nepali*)

The benefits of using local knowledge

 overcomes problems of data availability because farmer's knowledge accounts for variability,

 avoids bias arising from assumptions inherent in perspectives of conventional animal scientists,

 generates greater impact because farmers objectives, which are implicit in their evaluation of fodder, are addressed directly.



Contacts:

¹ Agricultural Research Station, Pakhribas, Dhankuta, Nepal ² Stirling Thorne Associates, UK

³ School of Agricultural and Forest Sciences, University of Wales, Bangor, Wales, UK