Use of portable NIR's to assess forage feed value

Need/issue: Forage feed value

Aim: To assess the nutritional content of the fodder used to feed ruminants in a rapid and precise way

How to implement:

- In the case of forage and silage samples from the farms, direct reading is made with the NIR, generating the corresponding spectra.

- In the case of sampling with the harvester, the procedure consists of obtaining spectra at the moment of harvesting when the product goes through the discharge pipe.

Description:

- Incorporate portable NIR technology for forage analysis as a useful tool for technical advice in ruminant rationing.

- Nutritional assessment of the forages used to feed ruminants can be done either at the time of harvesting using NIR equipment incorporated in the harvesting machine or once the forage has been conserved and stored at the farm, using portable NIR equipment.

Expected benefits:

The technique developed allows the analysis of a high number of forage samples at the farm gate, fast, reliably and at a reasonable cost. It improves the efficiency of rationing and feed formulation in livestock farms. The use of NIR technology in the combine harvester allows the farmer to get immediately knowledge about the quality of the forage, either if is purchased or produced on farm.

Prerequisites and/or limits:

- Traditional wet analysis of forage must be used as a reference to calibrate the portable NIR.
- A sampling protocol is key for the NIR technique to achieve the desired and necessary accuracy.
- The curves obtained need to be validated and, if necessary, updated.

Country: Spain

Dairy or/and meat sheep: Meat and Dairy sheep

Category of Animal (ewe, replacement, lamb):
All

Topic:

	Health
X	Nutrition
	Management

Level of solution:

	Knowledge
X	Practical

Source of information:

http://www.nirportatilforrajes.es/portal
https://www.navarraagraria.com/component/k2/item/1632-analisis-y-valoracion-de-forrajes-mediante-tecnologia-nir