PRACTICE ABSTRACT N0.043

Soybean silage

Problem

It is not always easy to produce good quality lucerne hay. Moreover, there are not many alternatives among the different types of fodder with the necessary protein content. At the same time, when growing organic soybeans, weed control can be an issue.

Solution

Growing soybeans: having a leguminous plant in the crop rotation is always beneficial, and harvesting it in advance in the form of silage allows you to obtain a quantity of fibre and protein comparable to lucerne. It also makes the presence of weeds (within certain limits) acceptable.

Outcome

Soybean silage can replace part of the lucerne hay or part of the lucerne silage.

Applicability box

Theme
Crop specific

Geographic coverage
Global

Application time
Before grain maturity

Required time
Silage requires shorter field drying time than hay

Period of impact
Harvest time

Equipment
Silage chopper

Best in
Double-crop soybean

Picture 1: Soybean full seed size – beginning maturity (R6/R7) stage. Date: 16-09-2014.
Picture 2: Seeds in detail (Credit ERSA FVG)

PRACTICE ABSTRACT

Practical recommendations

Observations and practical tips

- Best at the R6/R7 stage (full seed size for apical pods and beginning maturity for basal pods).
- Late harvests (stage R7/R8) promote good silage fermentation and preservation of the product; however, there is a loss of dry matter.
- If harvest occurs at stage R5/R6, use a swather to mow the soybean 24 to 48 hours prior to chopping (at around 35 % dry matter).
- Choose varieties with low levels of anti-nutritional factors.
- Increase seed rate to decrease stem diameter.
- Consider using a microbial inoculum to promote proper fermentation.

Assessing and sharing results

Evaluation of the silage parameters at chopping: evaluate the percentage dry matter content and pH of the chopped product.

Evaluation of silage parameters after fermentation: evaluate the crude protein and fibre content by feed analysis.

Use the comment section on the Farmknowledge platform to share your experiences with other farmers, advisors and scientists! If you have any questions concerning the method, please contact the author of the practice abstract by e-mail.

Further information

Link

- At www.aiab-aprobio.fvg.it, information on organic arable crop management is available in a biweekly bulletin and a topic-specific info sheet.
- The knowledge platform of OK-Net Arable offers information and practical updates on weed management and soil quality in organic arable cropping systems.
- The Regional Agency for Rural Development of Friuli Venezia Giulia website contains some papers on forage mix (in Italian).

About this practice abstract and OK-Net Arable

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