



*Sorghum: the safe bet for
the future*

DIFFERENT MONOCUT SORGHUM USED AS FORAGE: SOME GUIDES TO ADVISE FARMERS



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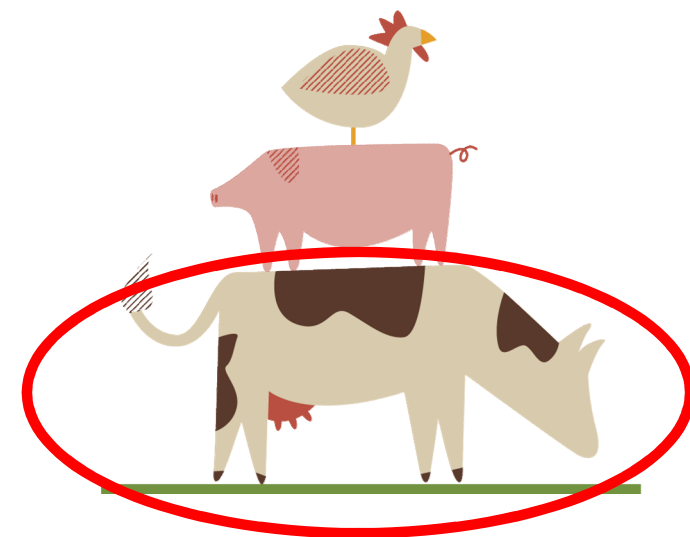
*2nd European Sorghum Congress
Milano, 7 and 8 November 2018*

SORGHUM AS FORAGE

Everybody heard about sorghum for ruminant but which sorghum?????

wide diversity → **Opportunity**

Risk



Challenges: precise agronomic data and nutritional value of monocut sorghums

VALEUR NUTRITIONNELLE DU SORGHO GRAIN

Monocut sorghum (*Sorghum bicolor*)

- MALE STERILE (MS),
- BROWN MID RIB GENE (BMR),
- PHOTOPERIODE SENSITIVE HEADING (PPS),
- WHOLE PLANT 'GRAIN' SORGHUM ENSILED



The work : describe French database for monocut sorghum:

n total= 3730. Samples from CTPS, labs database, seed companies and harvested between 2008 and 2018 in France.

Sorghum ^{ID}

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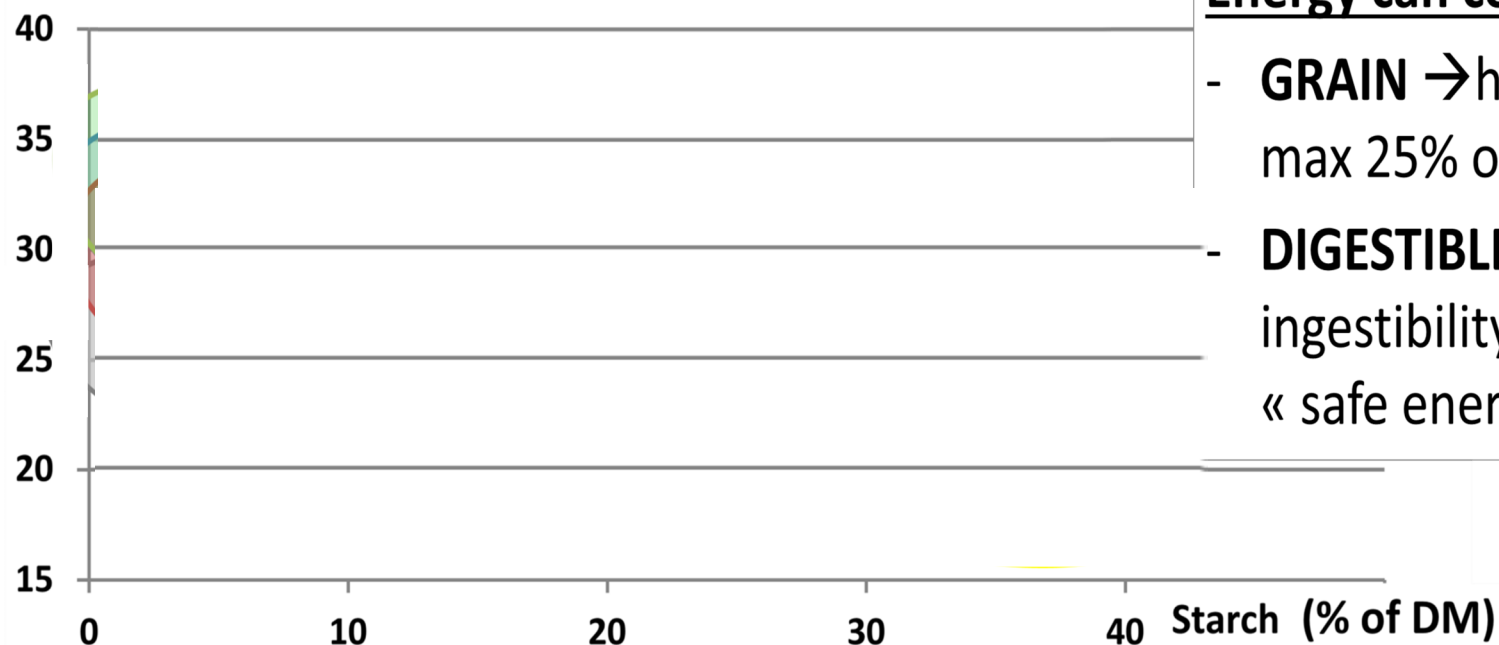
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FORAGE ENERGY CONTENT

Two main sources

Digestible NDF
(% of DM)



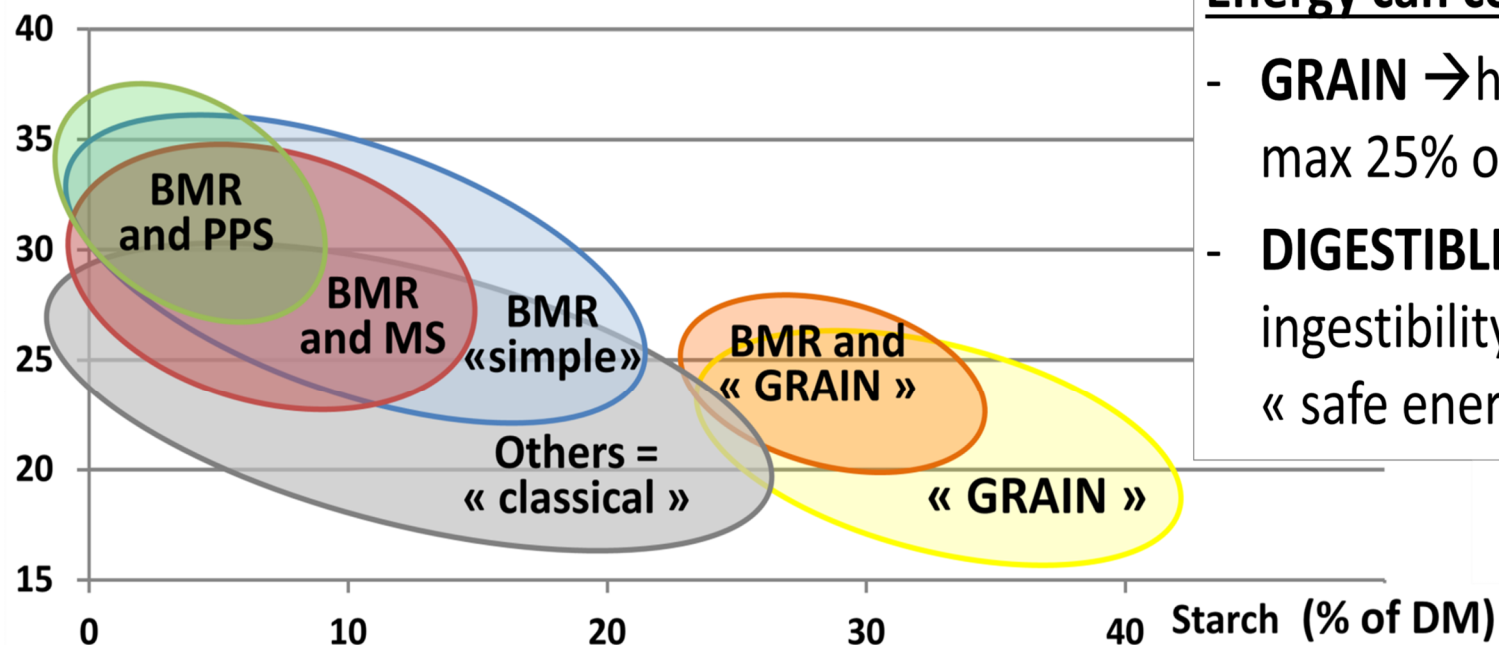
Energy can come +/- from:

- **GRAIN** → highly digestible but max 25% of starch in dairy diet!
- **DIGESTIBLE FIBERS** → good for ingestibility and rumination, « safe energy »

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FORAGE NUTRITIVE VALUE

Genotype =>	BMR & MS	BMR & 'GRAIN'	BMR 'simple'	BMR & PPS	'GRAIN'	Others = 'classical'
Number of samples	462	60	1341	874	207	786
Starch <small>fresh</small> (% of DM)	4.7	29.3	6.9	2.6	30.7	9.5
Soluble sugars <small>fresh</small> (% of DM)	20.7	9.1	19.6	19.0	7.1	16.6
OM digestibility <small>fresh</small> (%) *	77.1	78.8	76.6	74.1	70.9	68.6

*Fresh OMD was calculated with ARVALIS equation (Férard et al. 2014).

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French CTPS classification	<p>« Silage use » ← → « double use »</p>					
Dairy cows (+35 kg milk/d)		/!\ starch diet %	Max 50% of forages			
Dairy cows (25 kg milk/d)		/!\ starch diet %			/!\ starch diet %	
Heifers						
Fatening young bulls			Max 50% of forages			

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