

1 - CHEMICAL Analysis (Wet chem.)

Acid Detergent Fiber (V. Soest mod. Ankom)	ADF
Lignin, Acid Detergent (V. Soest mod. Ankom) (sequential ADF)	ADL
Volatile fatty acids (Lactic-Acetic-Butyric acid Met. Weigner)	
Total primary alcohols (Enzymatic)	
Starch, Enzymatic (Met. UNI 22610)	STARCH
Starch, Polarimetric (Reg. CE 152/2009)	STARCH
Pregelatinised starch -Test amyloglucosidase - (1h/35°C)	
Ammonia (Met. Enzymatic)	NH3
Urease activity (Met. UNI 22613: NH3 released in 30' at 30°C)	
Not Proteic Nitrogen (Met. Sodium Tungstate/20°C)	NPN
Biomethanization power (BMP, by calculation)	BMP
Ash (Reg. CE 152/2009)	ASH
Chlorides (Reg. CE 152/2009)	Cl
Fiber (Reg. CE 152/2009 modify Ankom)	CF
Formaldehyde Test (Met. AOAC: Ac. Chromotropic)	HCOH
Granulometry (sieving)	
Lactose (Met. Reg. CE 152/2009: Enzymatic)	
Crude Fat, Ether Extract (Met. Soxhlet Reg. CE 152/2009 vers.A)	EE
Crude Fat, Acid Hydrolysis (Met. Soxhlet before ac. hydrolysis: Reg. CE 152/2009 vers.B)	AH
Pre degreasing of seeds and oleaginous fruit and matrix not to mill (Met. NGD A4)	
Neutral Detergent Fiber ash free, with Na2SO3 + amylase (Met. V. Soest mod. Ankom)	NDFom
Neutral Detergent Fiber, with Na2SO3 + amylase (Met. V. Soest mod. Ankom)	aNDF
Nitrate (Refractometric)	NO3
pH (Potentiometric: IO-PH)	pH
Moisture (forages/silages) (Met. 70°C x 16h)	MOI
Acid Detergent Insoluble Nitrogen (Met. V. Soest mod. Ankom+Kjeldahl) (sequential ADF)	ADICP
Neutral Detergent Insoluble Nitrogen (Met. V. Soest mod. Ankom+Kjeldahl) (sequential NDF)	ND-ICP
Soluble Crude Protein (Met. buffer 6,8 at 20-25°C+Kjeldahl)	SP
Crude Protein (Met. Kjeldahl-AOAC 2001.11)	CP
Crude Protein (Met. Dumas -AOAC 990.03)	CP
Insoluble ash in HCl (Reg. CE 152/2009) (sequential ash)	
Sulphites (Met. iodometric)	
Moisture (Met. Thermobalance)	MOI
Moisture (Met. 105°C, Reg. CE 152/2009)	MOI
Urea (Met. Enzymatic)	
Total sugar before and after inversion (Met. Reg. CE 152/2009 -Luff Shoorl)	

2 - NIRS ANALYSIS

(Near-infrared spectroscopy) (Calibrations by the laboratory):

Feed (DM-CP-EE-CF-ASH-STARCH)
Forages (DM-CP-EE-CF-ASH- ADICP-SP-NDFom-NDF-ADF-ADL-SUGAR)
Silages (DM-CP-EE-CF-ASH-SP-NDFom-NDF-ADF-ADL-NH3-AGV-pH-(STARCH))
CornSilages (DM-CP-EE-CF-ASH -NDF-ADF-ADL-CEN-NH3-AGV-pH-STARCH-ALCOOLS)
TMR (on DM: DM-CP-EE-CF-ASH- ADICP-SP-NDF-ADF-ADL-SUGAR-STARCH)

3 - NIRS REMOTE ANALYSIS

(Near-infrared spectroscopy) (Calibrations by Dairyland -USA): (partially discountable)

-Forages (DNDF & uNDFom 30-120-240h and others: remote at Dairyland -USA);	DNDF
-Silages (DNDF & uNDFom 24-30-120-240h, IVSD 7h and others: remote at Dairyland -USA);	DNDF
-tmr (DNDF & uNDFom 240h and others: remote at Dairyland -USA);	DNDF
-Corn (IVSD 7h and others: remote at Dairyland -USA);	IVSD7

4 - XRF ANALYSIS

(X Ray Fluorescence) (Calibrations by the laboratory)

-Forages Profile (Ca P Mg K Na S Si Cl Fe Mn Cu Zn and DCAD calc) (non-discountable)	
-Feed Profile (Ca P Mg K Na S Si Cl Fe Mn Cu Zn) (non-discountable)	

5 - CHEMICAL Analysis: FATS

(Met. "NORME GRASSI e DERIVATI -NGD")

Fat extraction for Qualitative analysis (Met with Chloroform) – preliminary to subsequent analysis	
ACIDITY, EXPRESSED IN OLEIC ACID	
IMPURITIES IN PETROLEUM Ether	
KREISS TEST	
NUMBER OF PEROXIDES	
HUMIDITY VOLATILE SUBSTANCES (Met. in oven at 105°)	

6 - MYCOTOXINS

DEOXYNIVALENOL (Met. E.L.I.S.A., for simple feeds)	DON
DEOXYNIVALENOL (Met. E.L.I.S.A., with purification for complex aliments)	DON
TOXIN T-2 (Met. E.L.I.S.A., for simple feeds)	T2
TOXIN T-2 (Met. E.L.I.S.A., with purification for complex aliments)	T2
FUMONISINS (Met. E.L.I.S.A.)	FB tot
OCHRATOXIN A (Met. Fluorimetry)	OTA
ZEARALENONE (Met. E.L.I.S.A., for simple feeds)	ZEA
ZEARALENONE (Met. E.L.I.S.A., with purification for complex aliments)	ZEA
AFLATOXIN B1 (Met. Fluorimetry, with purification for complex aliments)	AB1
AFLATOXIN B1 (Met. ELISA for simple feeds)	AB1
AFLATOXIN TOT B1, B2, G1, G2 (Met. Fluorimetry: AOAC 991.31)	Afla tot

7 - MICROBIOLOGICAL ANALYSIS

Clostridium -sulphite reducing	
Mold Count & yeast	

SHORT NOTES:

The laboratory, following the NFTA certification (National Forage Testing Association, USA) remains aligned with the core value of the results obtained from more than 200 laboratories around the world for DM, CP, NDF, ADF, ADIN, ADL.

Also retains control of EEC reg. 152 by participating in proficiency test of BIPEA (Bureau Interprofessionel des Etudes Analytiques, Paris –Fr).

The quality of the results obtained with the NIR and XRF are monitored with the participation in interlaboratory circuits:

- NFTA (National Forage Testing Association, USA);
- University Sacro Cuore (Pc, IT);
- AAFCO (the Association of American Feed Control Officials (USA));
- BIPEA (FR):