

**CVAS****CORN GRAIN**

• = results by NIR

x = results by chemistry

■ = results by chemistry and NIR

ANALYSIS RESULTS	NIR					NIR Plus Option	Standard	Standard + Energies	CPM Plus	RFV	Basic NDF	TAG			
	1	2	3	4	5							1	2	3	4
Moisture / Dry Matter	x	x	x	x	x		x	x	x	x	x	x	x	x	x
PROTEINS															
Crude Protein	•	•	•	x	x		x	x	x	x	x	x	x	x	x
Adjusted Protein	•	•	•	•	•		x	x	x	x	x	x	x		
Soluble Protein	•	•	•	•	•		x	x	x						
Ammonia (CPE)	•	•	•	•	•										
ADF Protein (ADICP) / NDF Protein (NDICP)	•	•	•	•	•			x	x						
Rumen Degradable Protein															
FIBER															
ADF / aNDF	•	•	•	x	x		x	x	x	x	x	x			
aNDFom															
Crude Fiber	•	•	•	•	•								x	x	x
Lignin	•	•	•	•	•			x	x						
NDF Digestibility (12, 30, 120, 240 hr)															
uNDF (30, 120, 240 hr)															
CARBOHYDRATES															
Silage Acids (fermented feeds only)						•									
Ethanol Soluble CHO (Sugar)	•	•	•	•	•					x					
WaterSoluble CHO (Sugar)															
Starch	•	•	•	•	•					x					
Soluble Fiber															
Starch Dig. (7 hr, 4 mm)						•									
Fatty Acids , Total and Profile						•									
Crude Fat	•	•	•	•	•				x	x			x	x	x
MINERALS															
Ash	•	•	•	•	•		x	x	x			x	x	x	x
Macro Minerals (Ca, P, Mg, K)	•	x	x	x	•		x	x	x			x		x	
Micro Minerals (Fe, Mn, Zn, Cu)	x	x	x				x	x	x			x		x	
Tag Minerals (Ca, P)													x	x	
Sulfur, Chloride, DCAD calculation		x								x					
QUALITATIVE (fermented feeds only)															
Volatile Fatty Acids						•									
Soil Contamination Probability															
Nitrate Probability															
NIR Statistical Confidence						•									
ENERGY & INDEX CALCULATIONS															
pH (fermented feeds only)	•	•	•	•	•		x	x	x			x			
TDN	•	•	•	•	•		■	x	x	■	■				
Net Energy Lactation, Maintenance, Gain	•	•	•	•	•		■	x	x	■	■				
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin *2.4)						•									
NDF Dig. Rate (Kd, %HR, uNDF)															
Starch Dig. Rate (Kd, %HR Mertens)						•									
Relative Feed Value															
Relative Feed Quality															
Milk per Ton															
Dig. Organic Matter Index															
Non Fiber Carbohydrates	•	•	•	•	•		■	x	x			■			
Non Structural Carbohydrates	•	•	•	•	•				x						
CNCPS/CPM Lignin Factor															
Summative Index % (Mass Balance)						•									
RFC Fill Index															

*NIR 1, 2 or 3 package with the plus option will include all fields needed for the CNCPS model.



CVAS

SMALL GRAINS

- = results by NIR

x = results by chemistry



CVAS

ALMOND HULLS

- = results by NIR
- x = results by chemistry
- = results by chemistry and NIR



CVAS

BAKERY WASTE

• = results by NIR

x = results by chemistry

■ = results by chemistry and NIR

ANALYSIS RESULTS	NIR					Standard	Standard + Energies	CPM Plus	RFV	Basic NDF	TAG			
	1	2	3	4	5						1	2	3	4
Moisture / Dry Matter	x	x	x	x	x	x	x	x	x	x	x	x	x	x
PROTEINS														
Crude Protein	•	•	•	x	x	x	x	x	x	x	x	x	x	x
Adjusted Protein	•	•	•	•	•	x	x	x	x	x	x	x		
Soluble Protein	•	•	•	•	•	x	x	x						
Ammonia (CPE)														
ADF Protein (ADICP) / NDF Protein (NDICP)	•	•	•	•	•		x	x						
Rumen Degradable Protein														
FIBER														
ADF / aNDF	•	•	•	x	x	x	x	x	x	x	x			
aNDFom														
Crude Fiber	•	•	•	•	•						x	x	x	
Lignin	•	•	•	•	•		x	x						
NDF Digestibility (30, 120, 240 hr)														
uNDF (30, 120, 240 hr)														
CARBOHYDRATES														
Silage Acids (fermented feeds only)														
Ethanol Soluble CHO (Sugar)	•	•	•	•	•			x						
WaterSoluble CHO (Sugar)														
Starch	•	•	•	•	•			x						
Soluble Fiber														
Starch Dig. (7 hr, 4 mm)														
Fatty Acids , Total and Profile														
Crude Fat	•	•	•	•	•		x	x			x	x	x	
MINERALS														
Ash	•	•	•	•	•	x	x	x		x	x	x	x	
Macro Minerals (Ca, P, Mg, K)	•	x	x	x	•	x	x	x		x		x	x	
Micro Minerals (Fe, Mn, Zn, Cu)	x	x	x			x	x	x		x		x	x	
Tag Minerals (Ca, P)											x		x	x
Sulfur, Chloride, DCAD calculation		x						x						
QUALITATIVE (fermented feeds only)														
Volatile Fatty Acids														
Soil Contamination Probability														
Nitrate Probability														
NIR Statistical Confidence														
ENERGY & INDEX CALCULATIONS														
pH (fermented feeds only)														
TDN	•	•	•	•	•	■	x	x	■	■				
Net Energy Lactation, Maintenance, Gain	•	•	•	•	•	■	x	x	■	■				
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin *2.4)														
NDF Dig. Rate (Kd, %HR, uNDF)														
Starch Dig. Rate (Kd, %HR Mertens)														
Relative Feed Value														
Relative Feed Quality														
Milk per Ton														
Dig. Organic Matter Index														
Non Fiber Carbohydrates	•	•	•	•	•	■	x	x		■				
Non Structural Carbohydrates	•	•	•	•	•			x						
CNCPS/CPM Lignin Factor														
Summative Index % (Mass Balance)														

The NIR Plus Option does not apply to this feed type.



CVAS

BEET PULP

• = results by NIR

x = results by chemistry

■ = results by chemistry and NIR

ANALYSIS RESULTS	NIR					Standard	Standard + Energies	CPM Plus	RFV	Basic NDF	TAG			
	1	2	3	4	5						1	2	3	4
Moisture / Dry Matter	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PROTEINS														
Crude Protein	•	•	•	X	X	X	X	X	X	X	X	X	X	X
Adjusted Protein	•	•	•	•	•	X	X	X	X	X	X	X	X	X
Soluble Protein	•	•	•	•	•	X	X	X						
Ammonia (CPE)														
ADF Protein (ADICP) / NDF Protein (NDICP)	•	•	•	•	•		X	X						
Rumen Degradable Protein														
FIBER														
ADF / aNDF	•	•	•	X	X	X	X	X	X	X	X	X	X	X
aNDFom														
Crude Fiber													X	X
Lignin	•	•	•	•	•		X	X						
NDF Digestibilty (30, 120, 240 hr)														
uNDF (30, 120, 240 hr)														
CARBOHYDRATES														
Silage Acids (fermented feeds only)														
Ethanol Soluble CHO (Sugar)	•	•	•	•	•				X					
WaterSoluble CHO (Sugar)														
Starch	•	•	•	•	•				X					
Soluble Fiber														
Starch Dig. (7 hr, 4 mm)														
Fatty Acids , Total and Profile														
Crude Fat	•	•	•	•	•		X	X			X	X	X	X
MINERALS														
Ash	•	•	•	•	•	X	X	X			X	X	X	X
Macro Minerals (Ca, P, Mg, K)	•	X	X	X	•	X	X	X			X	X	X	X
Micro Minerals (Fe, Mn, Zn, Cu)	X	X	X			X	X	X			X	X	X	X
Tag Minerals (Ca, P)												X	X	X
Sulfur, Chloride, DCAD calculation			X						X					
QUALITATIVE (fermented feeds only)														
Volatile Fatty Acids														
Soil Contamination Probability														
Nitrate Probability														
NIR Statistical Confidence														
ENERGY & INDEX CALCULATIONS														
pH (fermented feeds only)														
TDN	•	•	•	•	•	■	X	X	■	■				
Net Energy Lactation, Maintenance, Gain	•	•	•	•	•	■	X	X	■	■				
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin *2.4)														
NDF Dig. Rate (Kd, %HR, uNDF)														
Starch Dig. Rate (Kd, %HR Mertens)														
Relative Feed Value														
Relative Feed Quality														
Milk per Ton														
Dig. Organic Matter Index														
Non Fiber Carbohydrates	•	•	•	•	•	■	X	X			■			
Non Structural Carbohydrates	•	•	•	•	•				X					
CNCPS/CPM Lignin Factor														
Summative Index % (Mass Balance)														

The NIR Plus Option does not apply to this feed type.



CVAS

BREWERS GRAINS, WET & DRY

- = results by NIR
- ✗ = results by chemistry
- = results by chemistry and NIR



CVAS

CANOLA MEAL

- = results by NIR
- x = results by chemistry
- = results by chemistry and NIR



CVAS

CORN GLUTEN FEED

- = results by NIR
- x = results by chemistry
- = results by chemistry and NIR



CVAS

DISTILLERS GRAINS, DRY & WET

- = results by NIR

x = results by chemistry



CVAS

FEATHERMEAL

- = results by NIR
- ✗ = results by chemistry
- = results by chemistry and NIR



CVAS

SOY HULLS

• = results by NIR

x = results by chemistry

■ = results by chemistry and NIR



CVAS

SOYBEAN MEAL

• = results by NIR

x = results by chemistry

■ = results by chemistry and NIR

ANALYSIS RESULTS	NIR					Standard	Standard + Energies	CPM Plus	RFV	Basic NDF	TAG			
	1	2	3	4	5						1	2	3	4
Moisture / Dry Matter	x	x	x	x	x	x	x	x	x	x	x	x	x	x
PROTEINS														
Crude Protein	•	•	•	x	x	x	x	x	x	x	x	x	x	x
Adjusted Protein						x	x	x	x	x	x	x		
Soluble Protein						x	x	x						
Ammonia (CPE)														
ADF Protein (ADICP) / NDF Protein (NDICP)							x	x						
Rumen Degradable Protein														
FIBER														
ADF / aNDF				x	x	x	x	x	x	x	x			
aNDFom														
Crude Fiber	•	•	•	•	•						x	x	x	
Lignin							x	x						
NDF Digestibility (30, 120, 240 hr)														
uNDF (30, 120, 240 hr)														
CARBOHYDRATES														
Silage Acids (fermented feeds only)														
Ethanol Soluble CHO (Sugar)								x						
WaterSoluble CHO (Sugar)														
Starch								x						
Soluble Fiber														
Starch Dig. (7 hr, 4 mm)														
Fatty Acids , Total and Profile														
Crude Fat	•	•	•	•	•		x	x			x	x	x	
MINERALS														
Ash						x	x	x			x	x	x	
Macro Minerals (P, Mg, K)	x	x	x			x	x	x			x		x	
Micro Minerals (Fe, Mn, Zn, Cu)	x	x	x			x	x	x			x		x	
Tag Minerals (Ca, P)	•			•								x		x
Sulfur, Chloride, DCAD calculation		x						x						
QUALITATIVE (fermented feeds only)														
Volatile Fatty Acids														
Soil Contamination Probability														
Nitrate Probability														
NIR Statistical Confidence														
ENERGY & INDEX CALCULATIONS														
pH (fermented feeds only)														
TDN			•	•		■	x	x			■			
Net Energy Lactation, Maintenance, Gain			•	•		■	x	x			■			
NDF Dig. Rate (Kd, %HR, Van Amburgh, Lignin *2.4)														
NDF Dig. Rate (Kd, %HR, uNDF)														
Starch Dig. Rate (Kd, %HR Mertens)														
Relative Feed Value														
Relative Feed Quality														
Milk per Ton														
Dig. Organic Matter Index														
Non Fiber Carbohydrates			•	•		■	x	x			■			
Non Structural Carbohydrates									x					
CNCPS/CPM Lignin Factor														
Summative Index % (Mass Balance)														

The NIR Plus Option does not apply to this feed type.



CVAS

WHEAT MIDDS

- = results by NIR
- ✗ = results by chemistry
- = results by chemistry and NIR