



Stratford Agri Analysis

FORAGE SUMMARY – CANADA 2017-2018

HAY
JUNE 2017- MAY 2018

Item	N° Samples	Mean	S.D.	Min/Max
Legume Hay				
Moisture, %	170	13.58	3.01	7.6-24.9
Protein (N x 6.25), %DM	170	17.69	3.20	7.6-24.9
Soluble protein, %DM	170	6.87	1.90	1.9-11.7
ADF-CP, %DM	170	1.24	0.27	0.11-2.5
NDF-CP, %DM	170	2.75	0.61	1.5-4.6
ADF, %DM	170	32.52	4.70	23.8-45.1
aNDFom, %DM	170	39.85	6.90	27.6-60.2
uNDFom (30 h), %DM	170	22.7	4.66	14.7-42.1
uNDFom (120 h), %DM	170	18.34	4.31	9.5-36.4
uNDFom (240 h), %DM	170	16.9	4.26	7.4-35.6
NDFD (30 h), %NDF	170	43.01	7.05	27.2-62.7
NDFD (120 h), %NDF	170	53.78	8.00	37-77.8
NDFD (240 h), %NDF	170	57.46	7.96	38.4-82.7
Lignin, %DM	170	6.89	1.27	4.5-12.2
ESC, %DM	170	6.69	1.73	1.2-13.6
WSC, %DM	170	8.31	1.88	3-15.5
Fat, %DM	170	2.34	0.37	1.3-3.3
TFA, %DM	170	1.32	0.28	0.6-2
Ash, %DM	170	11.15	1.41	8.1-15.5
Calcium, %DM	170	1.49	0.36	0.5-2.9
Phosphorous, %DM	170	0.26	0.07	0.1-0.4
Potassium, %DM	170	2.32	0.56	1.3-4.5
Magnesium, %DM	170	0.35	0.12	0.1-0.8
TDN, %DM	170	59.28	3.77	48.5-66.8
NEL _{3x} , Mcal/KgDM	170	1.39	0.1	1.1-1.6
Relative Feed Quality	170	154.45	32.97	86-240
Grass Hay				
Moisture, %	172	14.48	3.99	2.9-29.6
Protein (N x 6.25), %DM	172	9.24	3.33	3.1-17.8
Soluble protein, %DM	172	2.75	1.23	0.6-6.9
ADF-CP, %DM	172	1.08	0.26	0.4-1.7
NDF-CP, %DM	172	3.12	0.84	1.1-5.3
ADF, %DM	172	40.64	6.44	27-67.7
aNDFom, %DM	172	58.64	8.44	34.5-86.5
uNDFom (30 h), %DM	172	30.42	9.42	9.4-71.8
uNDFom (120 h), %DM	172	21.66	7.94	5.4-60.7
uNDFom (240 h), %DM	172	19.2	7.36	4.2-56.8
NDFD (30 h), %NDF	172	49.03	9.66	13.6-74.5
NDFD (120 h), %NDF	172	63.76	9.54	29.9-86.9
NDFD (240 h), %NDF	172	67.92	9.09	33.6-89.4

Lignin, %DM	172	6.53	1.89	1.5-17.7
ESC, %DM	172	6.86	2.6	0.24-15.0
WSC, %DM	172	9.25	3.27	0.7-17.6
Fat, %DM	172	2.51	0.59	0.5-4.2
TFA, %DM	172	1.24	0.46	0.02-2.9
Ash, %DM	172	9.77	1.74	5.2-15.1
Calcium, %DM	172	0.59	0.26	0.2-1.9
Phosphorous, %DM	172	0.20	0.09	0.03-0.4
Potassium, %DM	172	1.69	0.58	0.4-3.5
Magnesium, %DM	172	0.21	0.09	0.07-0.5
TDN, %DM	172	55.55	5.35	33.4-69
NEL _{3x} , Mcal/KgDM	172	1.22	0.17	0.5-1.6
Relative Feed Quality	172	106.23	22.33	44.2-197.6
Mixed Hay				
Moisture, %	489	14.53	3.49	6.6-27.9
Protein (N x 6.25), %DM	489	13.14	4.25	3.3-23.6
Soluble protein, %DM	489	4.47	2.07	1.0-9.7
ADF-CP, %DM	489	1.23	0.29	0.6-2.8
NDF-CP, %DM	489	3.00	0.64	1.2-5.1
ADF, %DM	489	37.78	5.46	24.2-52.1
aNDFom, %DM	489	50.62	9.26	29-78.9
uNDFom (30 h), %DM	489	27.37	6.09	15-50.2
uNDFom (120 h), %DM	489	20.96	5.55	10.6-43.6
uNDFom (240 h), %DM	489	18.89	5.11	8.4-40.6
NDFD (30 h), %NDF	489	45.83	7.04	22-70.1
NDFD (120 h), %NDF	489	58.37	8.47	36.5-79.9
NDFD (240 h), %NDF	489	62.47	8.05	40.7-83.9
Lignin, %DM	489	7.08	1.4	3.3-12.4
ESC, %DM	489	6.42	1.95	0.48-13.11
WSC, %DM	489	8.3	2.25	0.9-15.8
Fat, %DM	489	2.37	0.42	1.2-3.9
TFA, %DM	489	1.24	1.3	0.2-2.2
Ash, %DM	489	10.27	1.49	6.9-17.0
Calcium, %DM	489	1.02	0.43	0.15-2.4
Phosphorous, %DM	489	0.23	0.07	0.04-0.5
Potassium, %DM	489	1.97	0.53	0.6-4.0
Magnesium, %DM	489	0.26	0.11	0.08-0.8
TDN, %DM	489	56.55	3.97	43.2-67.0
NEL _{3x} , Mcal/KgDM	489	1.28	0.13	0.8-1.6
Relative Feed Quality	489	121.73	30.41	59.1-232.5

HAYLAGE
JUNE 2017- MAY 2018

Item	N° Samples	Mean	S.D.	Min/Max
Legume Haylage				
Moisture, %	594	53.85	12.66	12.9-82.9
Protein (N x 6.25), %DM	594	18.13	2.96	9.0-27.1
Soluble protein, %DM	594	9.65	2.91	2.2-20.4
ADF-CP, %DM	594	1.66	0.34	0.9-4.9
NDF-CP, %DM	594	2.81	0.67	0.9-5.3
ADF, %DM	594	34.77	4.29	24.8-52.5
aNDFom, %DM	594	41.64	6.38	27.3-65.3
uNDFom (30 h), %DM	594	21.56	4.89	9.3-44.2
uNDFom (120 h), %DM	594	17.54	4.37	6.7-37.7
uNDFom (240 h), %DM	594	16.32	4.31	6.0-34.6
NDFD (30 h), %NDF	594	48.32	7.4	25.1-75.2
NDFD (120 h), %NDF	594	57.81	8.32	35-82.1
NDFD (240 h), %NDF	594	60.73	8.53	37.1-83.9
Lignin, %DM	594	7.57	1.31	3.5-14.5
ESC, %DM	594	3.38	1.79	0.2-7.6
WSC, %DM	594	4.89	2.64	0.2-13.8
Fat, %DM	594	3.17	0.68	1.1-5.3
TFA, %DM	594	1.56	0.35	0.2-2.5
Ash, %DM	594	10.98	1.62	6.7-18
Calcium, %DM	594	1.39	0.33	0.4-2.5
Phosphorous, %DM	594	0.32	0.07	0.1-0.9
Potassium, %DM	594	2.51	0.57	1.0-4.7
Magnesium, %DM	594	0.29	0.11	0.1-0.8
TDN, %DM	594	58.19	3.77	37.3-68.1
NEL _{3x} , Mcal/KgDM	594	1.37	0.11	0.7-1.6
Relative Feed Quality	594	153.98	27.51	68-251
Grass Haylage				
Moisture, %	205	50.41	15.03	4.2-80.9
Protein (N x 6.25), %DM	205	13.8	3.08	6.1-21.8
Soluble protein, %DM	205	6.04	2.47	1.2-13.2
ADF-CP, %DM	205	1.46	0.33	0.3-2.7
NDF-CP, %DM	205	2.92	0.8	1.1-5.5
ADF, %DM	205	36.28	4.12	25.5-48.2
aNDFom, %DM	205	49.34	7.17	33.1-68.5
uNDFom (30 h), %DM	205	21.32	6.25	8.3-40.2
uNDFom (120 h), %DM	205	14.64	4.71	5.7-31.7
uNDFom (240 h), %DM	205	13.11	4.64	3.9-29.8
NDFD (30 h), %NDF	205	57.39	8.25	33.5-78.6
NDFD (120 h), %NDF	205	70.68	7.62	42.6-87.2
NDFD (240 h), %NDF	205	73.79	7.72	46-90.6
Lignin, %DM	205	5.97	1.4	2.1-9.9
ESC, %DM	205	4.5	1.95	0.2-12.9
WSC, %DM	205	6.62	3.28	0.9-20.3
Fat, %DM	205	3.44	0.67	1.8-5.2
TFA, %DM	205	1.83	0.38	0.8-2.9
Ash, %DM	205	10.0	1.98	4.6-15.1
Calcium, %DM	205	0.8	0.29	0.3-1.8
Phosphorous, %DM	205	0.31	0.09	0.08-0.5
Potassium, %DM	205	2.46	0.73	1.0-5.1
Magnesium, %DM	205	0.26	0.09	0.1-0.6
TDN, %DM	205	59.63	3.81	48.9-69.9
NEL _{3x} , Mcal/KgDM	205	1.36	0.1	1.1-1.6
Relative Feed Quality	205	142.21	24.38	92.7-221

Mixed Haylage				
Moisture, %	1106	52.38	12.8	1.5-82.0
Protein (N x 6.25), %DM	1106	16.3	3.37	4.7-25.6
Soluble protein, %DM	1106	8.17	3.05	0.4-17.4
ADF-CP, %DM	1106	1.63	0.36	0.4-5.1
NDF-CP, %DM	1106	2.86	0.71	1.0-6.9
ADF, %DM	1106	36.32	4.39	23.7-58.6
aNDFom, %DM	1106	45.7	7.33	27.9-69.2
uNDFom (30 h), %DM	1106	22.59	5.79	10.4-59.8
uNDFom (120 h), %DM	1106	17.51	4.84	6.1-42.6
uNDFom (240 h), %DM	1106	16.15	4.72	4.5-38.1
NDFD (30 h), %NDF	1106	50.87	7.64	8.9-75
NDFD (120 h), %NDF	1106	61.71	8.27	33.6-86.3
NDFD (240 h), %NDF	1106	65.64	8.47	40.3-89.8
Lignin, %DM	1106	7.22	1.47	2.7-14.5
ESC, %DM	1106	3.63	1.82	0.14-12.1
WSC, %DM	1106	5.34	2.78	0.6-16.7
Fat, %DM	1106	3.18	0.68	0.6-6.7
TFA, %DM	1106	1.59	0.35	0.3-2.8
Ash, %DM	1106	10.54	1.76	3.6-22
Calcium, %DM	1106	1.16	0.36	0.25-4.0
Phosphorous, %DM	1106	0.32	0.07	0.09-0.75
Potassium, %DM	1106	2.48	0.59	0.7-6.3
Magnesium, %DM	1106	0.27	0.1	0.08-1.6
TDN, %DM	1106	57.8	3.95	37.8-68.9
NEL _{3x} , Mcal/KgDM	1106	1.34	0.12	0.7-1.61
Relative Feed Quality	1106	143.0	27.33	66.4-255.2

SMALL GRAIN SUMMARY

JUNE 2017- MAY 2018

Item	N° Samples	Mean	S.D.	Min/Max
<i>Small Grain Silage</i>				
Moisture, %	362	62.02	9.57	31.3-83.0
Protein (N x 6.25), %DM	362	11.81	2.68	3.5-21.0
Soluble protein, %DM	362	6.47	2.12	1.3-13.0
ADF-CP, %DM	362	0.91	0.32	0.28-2.9
NDF-CP, %DM	362	1.42	0.55	0.4-3.6
ADF, %DM	362	34.1	5.98	18.2-55.6
aNDFom, %DM	362	49.0	6.77	30.5-71.2
uNDFom (30 h), %DM	362	20.03	5.66	7.4-41.1
uNDFom (120 h), %DM	362	15.86	4.17	5.3-30.2
uNDFom (240 h), %DM	362	14.42	3.9	4.4-26.6
NDFD (30 h), %NDF	362	59.39	8.87	36.6-82.9
NDFD (120 h), %NDF	362	67.6	7.42	47.2-87.6
NDFD (240 h), %NDF	362	70.51	7.29	50.9-89.8
Lignin, %DM	362	4.51	1.55	1.1-10.2
ESC, %DM	362	2.02	1.15	0.2-7.7
WSC, %DM	362	4.8	2.66	0.6-16.3
Fat, %DM	362	3.61	0.73	1.2-5.5
TFA, %DM	362	1.7	0.43	0.17-2.9
Ash, %DM	362	10.0	2.02	6.3-18.2
Calcium, %DM	362	0.49	0.29	0.14-1.8
Phosphorous, %DM	362	0.3	0.08	0.06-0.54
Potassium, %DM	362	2.13	0.7	0.2-6.1
Magnesium, %DM	362	0.21	0.08	0.04-0.6
TDN, %DM	362	62.22	5.56	48.5-66.8
NEL _{3x} , Mcal/KgDM	362	1.39	0.12	0.9-1.7
Relative Feed Quality	362	155.6	29.8	81.9-267
<i>Small Grain Hay</i>				
Moisture, %	41	16.86	5.01	9-30
Protein (N x 6.25), %DM	41	8.66	2.4	3.2-14.3
Soluble protein, %DM	41	2.36	0.86	0.95-5.1
ADF-CP, %DM	41	1.2	0.44	0.7-2.9
NDF-CP, %DM	41	1.93	0.98	1.0-5.8
ADF, %DM	41	40.29	7.7	28.4-65.1
aNDFom, %DM	41	57.56	6.01	40.9-72.6
uNDFom (30 h), %DM	41	28.38	9.4	15.6-57.6
uNDFom (120 h), %DM	41	21.57	8.01	12.9-52.4
uNDFom (240 h), %DM	41	19.29	7.89	10.4-50.5
NDFD (30 h), %NDF	41	51.3	13.3	3.5-70.5
NDFD (120 h), %NDF	41	63.1	11.46	12.3-77.3
NDFD (240 h), %NDF	41	67.03	11.81	15.4-84.8
Lignin, %DM	41	6.67	2.38	3.6-14.3
ESC, %DM	41	3.12	1.72	0.2-7.5
WSC, %DM	41	6.82	2.8	0.6-12.4
Fat, %DM	41	2.26	0.87	0.5-4.5
TFA, %DM	41	1.21	0.48	0.4-2.5
Ash, %DM	41	9.75	3.11	5.6-22.8
Calcium, %DM	41	0.5	0.42	0.14-2.6
Phosphorous, %DM	41	0.22	0.07	0.07-0.4
Potassium, %DM	41	1.81	0.56	0.34-3.5
Magnesium, %DM	41	0.24	0.13	0.12-0.72
TDN, %DM	41	56	6.83	38.6-65.4
NEL _{3x} , Mcal/KgDM	41	1.22	0.19	0.71-1.45
Relative Feed Quality	41	120.96	23.24	75.7

CORN SILAGE SUMMARY

OCTOBER 2017- MAY 2018

Item	N° Samples	Mean	S.D.	Min/Max
Moisture, %	824	63.33	6.76	17.3-79.6
Protein (N x 6.25), %DM	824	7.43	1.02	4.9-10.8
Soluble protein, %DM	824	3.53	1.05	1.1-6.4
ADF-CP, %DM	824	0.5	0.18	0.13-1.4
NDF-CP, %DM	824	0.91	0.26	0.4-2.1
ADF, %DM	824	26.1	3.3	17.5-46.5
aNDFom, %DM	824	40.9	5.6	23.3-70
uNDFom (30 h), %DM	824	17.65	3.2	10.1-36.7
uNDFom (120 h), %DM	824	12.5	2.22	6.7-26.9
uNDFom (240 h), %DM	824	10.64	2.01	5.3-23.2
NDFD (30 h), %NDF	824	56.96	3.86	46.2-70.1
NDFD (120 h), %NDF	824	69.43	3.19	56.5-80.3
NDFD (240 h), %NDF	824	74.04	2.84	62.9-84.9
Lignin, %DM	824	298	0.55	1.7-6.9
Starch, %DM	824	33.34	7.11	0.3-51.8
SCHD-7h, %SCH	821	70.86	6.52	38.8-89.5
ESC, %DM	824	1.2	0.97	0.06-7.9
WSC, %DM	824	1.95	0.2	0.12-10.6
Fat, %DM	824	2.98	0.53	1.1-4.8
TFA, %DM	824	2.16	0.39	0.9-3.7
Ash, %DM	824	4.73	0.81	2.8-9.9
Calcium, %DM	824	0.21	0.08	0.02-1.3
Phosphorous, %DM	824	0.23	0.05	0.04-0.5
Potassium, %DM	824	0.93	0.24	0.08-2.6
Magnesium, %DM	824	0.16	0.06	0.02-0.8
TDN, %DM	824	72.5	3.05	54-80.7
NEL _{3x} , Mcal/KgDM	824	1.55	0.06	1.17-1.7
Relative Feed Quality	824	199.9	30.35	92.4-354.3

CORN GRAIN SUMMARY

OCTOBER 2017 – MAY 2018

Item	N° Samples	Mean	S.D.	Min/Max
High Moisture Corn				
Moisture, %	90	27.21	3.94	17.9-38.0
Protein (N x 6.25), %DM	90	8.25	0.73	6.7-10.2
Acid Detergent Fibre, %	90	2.62	0.75	0.95-4.0
aNeutral Detergent Fibre, %DM	90	7.13	1.26	4.4-11.4
Starch, %DM	90	71.4	2.06	61.5-75.7
7-hr Starch Digestibility, %SCH	90	53.18	3.83	46.5-67.8
Fat, %DM	90	3.53	0.48	2.1-5.7
Ash, %DM	90	1.35	0.14	1.1-1.9
Calcium, %DM	90	0.02	0.04	0.0-0.41
Phosphorus, %DM	90	0.29	0.04	0.21-0.39
Potassium, %DM	90	0.39	0.05	0.3-0.54
Magnesium, %DM	90	0.1	0.01	0.07-0.14
H. M. Corn & Cob Meal				
Moisture, %	74	37.09	9.62	23.1-62.9
Protein (N x 6.25), %DM	74	7.4	0.64	5.7-8.9
Acid Detergent Fibre, %DM	74	9.84	5.15	2.2-29.1
aNeutral Detergent Fibre, %DM	74	22.69	10.1	4.9-59.8
Starch, %DM	74	53.1	11.7	19.3-69.7
Fat, %DM	74	2.90	0.49	1.5-3.8
Ash, %DM	74	1.79	0.30	1.2-2.7
Calcium, %DM	74	0.04	0.04	0.01-0.14
Phosphorus, %DM	74	0.26	0.03	0.18-0.3
Potassium, %DM	74	0.5	0.1	0.3-0.78
Magnesium, %DM	74	0.12	0.02	0.08-0.18