**Spring AFC**

**Table 1.** Nutritional composition of different spring AFC harvest at grazing height.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Treat | Variables | | | | | | | |
|  |  | Biomass kg/ha | CP% | ADF % | NDF % | NFC % | Crude fat % | CP Kg/ha | TDN kg/ha |
| 2015 | Barley | 31.6 | 28.3 | 23.6 | 36.4 | 22.2 | 8.93 | 8.43 | 57.5 |
| Rye | 739.1 | 16.9 | 27.3 | 48.5 | 21.4 | 4.18 | 117.3 | 544.0 |
| Triticale | 978.6 | 15.3 | 28.8 | 48.0 | 24.3 | 3.43 | 137.9 | 705.1 |
| Wheat | 1005.1 | 18.1 | 30.4 | 51.6 | 16.8 | 3.75 | 184.0 | 714.3 |
| H. Vetch | 345.6 | 35.3 | 28.2 | 35.7 | 11.8 | 3.53 | 125.1 | 226.1 |
| 2017 | Barley | 1052.40 | 21.3 | 24.4 | 42.4 | 17.3 | 5.33 | 221.3 | 748.8 |
| Rye | 1475.95 | 18.5 | 24.9 | 46.4 | 19.0 | 5.03 | 278.2 | 1078.4 |
| Triticale | 1067.35 | 22.9 | 25.5 | 44.9 | 13.8 | 5.70 | 230.2 | 767.1 |
| Wheat | 1417.50 | 19.7 | 25.7 | 45.3 | 17.0 | 5.35 | 279.0 | 1023.2 |
| H. Vetch | - | - | - | - | - | - | - | - |
| ANOVA  P > F | Year | 0.1811 | 0.3656 | 0.1115 | 0.4726 | 0.1242 | 0.4309 | 0.0907 | 0.2009 |
| Treat | 0.0387 | <0.0001 | 0.0018 | <0.0001 | 0.1073 | 0.0012 | 0.1183 | 0.0736 |
| Year x Treat | 0.2222 | <0.0001 | 0.0391 | 0.0006 | 0.0050 | 0.0008 | 0.5049 | 0.3164 |
| SE | 2015 | 278.28 | 1.27 | 1.22 | 1.67 | 1.94 | 0.742 | 46.4322 | 228.61 |
| 2017 | 321.97 | 1.06 | 1.06 | 1.72 | 2.09 | 0.217 | 73.3283 | 264.55 |

**Summer AFC**

**Table 2.** Nutritional composition of different summer AFC harvest at grazing height.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Treat | Variables | | | | | | | |
| CP% | SP % | ADF % | NDF% | Lignin % | NFC % | Ash % | TDN % |
| 2015 | Sorghum | 18.3 | 28.7 | 30.8 | 54.4 | 3.2 | 11.5 | 11.9 | 66.5 |
| Buckwheat | 12.1 | 28.0 | 34.8 | 45.5 | 10.0 | 28.7 | 10.9 | 58.5 |
| C. Vetch | 26.1 | 43.0 | 24.2 | 34.0 | 4.02 | 28.2 | 9.31 | 71.7 |
| Millet | 14.4 | 30.7 | 32.1 | 57.2 | 2.42 | 13.5 | 11.5 | 67.2 |
| Oats | 16.4 | 34.5 | 30.5 | 48.0 | 2.30 | 20.4 | 11.1 | 70.5 |
| Teff | 19.8 | 25.5 | 30.3 | 57.3 | 2.65 | 10.2 | 8.87 | 69.7 |
| 2016 | Sorghum | 19.0 | 24.0 | 28.7 | 55.2 | 2.82 | 11.4 | 10.7 | 68.0 |
| Buckwheat | 13.7 | 16.2 | 26.2 | 32.7 | 6.52 | 35.8 | 14.9 | 63.0 |
| C. Vetch | 31.0 | 43.6 | 14.2 | 20.4 | 2.80 | 34.5 | 9.45 | 77.2 |
| Millet | 17.1 | 23.7 | 30.9 | 56.4 | 2.62 | 9.55 | 13.6 | 64.7 |
| Oats | 30.4 | 33.7 | 25.4 | 34.8 | 4.15 | 14.7 | 14.7 | 69.5 |
| Teff | 29.3 | 24.3 | 22.5 | 52.3 | 1.55 | 4.95 | 9.32 | 72.5 |
| ANOVA  P > F | Year | <0.0001 | 0.0005 | 0.0041 | <0.0001 | 0.1309 | 0.7338 | 0.0003 | 0.2157 |
| Treat | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Year x Treat | 0.0034 | 0.0170 | 0.0021 | 0.0126 | <0.0001 | <0.0001 | 0.0013 | 0.0040 |
| SE | 2015 | 2.2103 | 1.1914 | 1.3443 | 3.2593 | 0.4908 | 1.6507 | 0.8053 | 1.3352 |
| 2016 | 0.7537 | 2.435 | 0.9242 | 0.6281 | 0.4159 | 0.8792 | 0.2388 | 1.1571 |

**Table 3.** Nutritional composition of different summer AFC harvest at grazing height.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Treat | Variables | | | | | | |
| Biomass | NEL | RFV | RFQ | Milk | CP kg ha | NDT kg ha |
| 2015 | Sorghum | 446.1 | 0.637 | 112.7 | 146.7 | 3855.0 | 78.76 | 295.4 |
| Buckwheat | 1857.4 | 0.597 | 126.5 | 162.5 | 3429.0 | 228.5 | 1087.4 |
| C. Vetch | 208.5 | 0.750 | 214.7 | 247.25 | 3705.5 | 25.3 | 64.4 |
| Millet | 1034.1 | 0.630 | 104.0 | 155.25 | 3725.0 | 148.9 | 690.4 |
| Oats | 1250.5 | 0.712 | 126.7 | 178.25 | 4102.2 | 200.7 | 878.9 |
| Teff | 89.5 | 0.655 | 106.0 | 144 | 3852.7 | 39.7 | 146.0 |
| 2016 | Sorghum | 857.45 | 0.65 | 112.2 | 171.25 | 4084.25 | 162.81 | 582.9 |
| Buckwheat | 2007.4 | 0.6775 | 194.7 | 221 | 3457.5 | 276.68 | 1267.2 |
| C. Vetch | 147.5 | 0.865 | 357.0 | 427.7 | 4430.11 | 37.185 | 92.7 |
| Millet | 1173.65 | 0.6125 | 107.0 | 153.25 | 3734.25 | 201.72 | 756.5 |
| Oats | 300.4 | 0.755 | 184.5 | 273.75 | 4029.5 | 90.425 | 209.4 |
| Teff | 118.75 | 0.7075 | 126.7 | 85.8385 | 4168.44 | 41.1975 | 106.0 |
| ANOVA P > F | Year | 0.5805 | 0.0433 | 0.0087 | 0.0157 | 0.0005 | 0.1659 | 0.6597 |
| Treat | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <.00001 |
| Year x Treat | <0.0001 | 0.0059 | <0.0001 | <0.0001 | 0.0024 | 0.0001 | <0.0001 |
| SE | 2015 | 104.91 | 0.0215 | 16.23 | 13.20 | 112.49 | 16.38 | 66.05 |
| 2016 | 112.77 | 0.8650 | 7.17 | 12.39 | 72.57 | 19.41 | 73.20 |

**Fall AFC**

**Table 4.** Nutritional composition of different spring AFC harvest at grazing height.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Treat | Variable | | | | | | | | |
| Biomass Kg/ha | CP% | TDN% | ADF | NDF | Ligin | NFC | Crude Fat% | Ash% |
| 2015 | Canola | 1728.6 | 18.8 | 74.2 | 20.7 | 25.2 | 3.82 | 37.0 | 5.62 | 13.33 |
| Sunn hemp | 1031.3 | 16.6 | 70.5 | 28.1 | 34.2 | 5.30 | 36.7 | 3.40 | 9.05 |
| Forage radish | 1687.6 | 15.5 | 68.5 | 19.6 | 21.8 | 4.32 | 40.9 | 4.22 | 17.50 |
| Oats | 1393.2 | 17.7 | 67.5 | 29.5 | 48.5 | 3.47 | 16.6 | 4.55 | 12.96 |
| Triticale | 862.4 | 21.5 | 68.5 | 28.2 | 50.8 | 3.60 | 11.4 | 4.77 | 11.39 |
| Wheat | 1596.25 | 18.2 | 69.0 | 30.6 | 54.4 | 3.35 | 13.2 | 4.32 | 9.82 |
| 2016 | Canola | 1747.9 | 29.9 | 73.7 | 13.2 | 20.7 | 1.67 | 25.8 | 5.5 | 18.17 |
| Sunn hemp | 123.7 | 37.0 | 73.0 | 17.3 | 25.6 | 2.42 | 23.2 | 4.1462 | 10.46 |
| Forage radish | 1967.7 | 23.9 | 65.2 | 17.9 | 23.8 | 1.87 | 24.3 | 4.275 | 23.66 |
| Oats | 1206.5 | 32.7 | 70.2 | 28.1 | 37.0 | 4.32 | 10.3 | 5.9 | 14.05 |
| Triticale | 564.7 | 34.8 | 72.0 | 25.2 | 35.5 | 3.97 | 11.2 | 5.625 | 12.76 |
| Wheat | 1063.7 | 32.4 | 68.2 | 27.0 | 39.6 | 3.52 | 6.35 | 5.65 | 16.04 |
| ANOVA  P > F | Year | 0.0007 | 0.0006 | 0.3052 | <0.0001 | <0.0001 | 0.0753 | 0.0058 | 0.0454 | 0.0092 |
| Treat | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.331 | <0.0001 | <.0001 | <0.0001 |
| Year x Treat | 0.0009 | 0.0006 | 0.0522 | <0.0001 | <0.0001 | 0.0167 | 0.0010 | 0.0012 | <0.0001 |
| SE | 2015 | 139.42 | 1.03 | 1.48 | 1.04 | 1.50 | 0.902 | 2.25 | 0.201 | 0.717 |
| 2016 | 109.51 | 1.41 | 1.05 | 0.65 | 1.07 | 0.296 | 1.58 | 0.289 | 0.627 |