



AVERAGE CARBOHYDRATE VALUES

*see page 2 for chart notes

TRIPLE CROWN HORSE FEED	% WSC* AVERAGE RANGE	% ESC* AVERAGE RANGE	% STARCH* AVERAGE RANGE	% STARCH + ESC* AVERAGE RANGE	% NSC* =g/lb. WSC+STARCH=NSC RANGE
Perform Gold	<u>7.7</u> 7.0-9.7	<u>5.6</u> 4.4-6.4	<u>9.7</u> 9.4-13.2	<u>15.3</u> 12.3-16.2	<u>17.4%=78.99g</u> 15.5-18.5
Senior Gold	<u>7.8</u> 6.5-8.5	<u>5.4</u> 4.7-6.8	<u>3.6</u> 3.5-5.7	<u>9.0</u> 8.2-15.0	<u>11.4%=51.75g</u> 10.0-15.3
Balancer Gold	<u>8.5</u> 7.7-8.7	<u>6.4</u> 6.2-7.1	<u>7.8</u> 7.0-8.0	<u>14.2</u> 13.2-15.1	<u>16.3%=74.00g</u> 14.7-16.7
Senior	<u>8.3</u> 7.0-9.0	<u>5.3</u> 4.7-6.7	<u>6.4</u> 4.5-7.5	<u>11.7</u> 9.2-14.2	<u>14.7%=66.73g</u> 11.5-16.5
Complete	<u>12.0</u> 11.0-14.5	<u>8.8</u> 8.5-10.5	<u>11.5</u> 11.7-13.8	<u>20.3</u> 15.4-22.0	<u>23.5%=106.69g</u> 21.9-27.0
Growth	<u>12.2</u> 10.2-13.2	<u>10.5</u> 9.5-12.5	<u>12.4</u> 11.8-13.8	<u>22.9</u> 15.4-24.0	<u>24.6%=111.68g</u> 19.7-25.1
Balancer	<u>8.0</u> 7.6-9.8	<u>7.2</u> 6.8-8.8	<u>3.1</u> 2.2-4.1	<u>10.3</u> 9.0-13.0	<u>11.1%=50.39g</u> 9.8-14.4
Lite	<u>4.8</u> 3.6-5.6	<u>4.2</u> 2.5-4.5	<u>5.3</u> 6.4-8.6	<u>9.5</u> 5.5-13.1	<u>10.1%=45.85g</u> 8.0-14.5
Low Starch	<u>5.1</u> 5.0-7.1	<u>3.1</u> 1.3-4.7	<u>9.9</u> 8.7-10.7	<u>13.0</u> 10.0-15.4	<u>15.0%=68.10g</u> 12.2-16.4
Naturals Pelleted	<u>7.3</u> 5.7-7.7	<u>7.0</u> 4.7-7.7	<u>14.8</u> 14.0-17.0	<u>21.8</u> 19.0-24.2	<u>22.1%=100.33g</u> 19.7-24.7
Safe Starch® Fortified Forage	<u>8.1</u> 8.0-9.8	<u>4.5</u> 3.8-6.1	<u>1.8</u> 0.2-2.2	<u>6.3</u> 4.0-8.3	<u>9.9%=44.94g</u> 7.2-10.0
StressFree™ Fortified Forage	<u>8.6</u> 6.3-8.9	<u>6.6</u> 5.4-6.7	<u>1.1</u> 0.8-1.3	<u>7.7</u> 5.2-8.0	<u>9.7%=44.03g</u> 8.1-10.2
Alfalfa Forage Blend	<u>8.7</u> 7.3-9.9	<u>8.0</u> 6.4-9.8	<u>4.7</u> 3.1-6.1	<u>12.7</u> 9.5-15.5	<u>13.4%=60.83g</u> 10.7-15.8
Premium Grass Forage	<u>8.7</u> 8.4-10.4	<u>6.1</u> 3.8-6.4	<u>2.1</u> 0.2-2.6	<u>8.2</u> 4.0-9.0	<u>10.8%=49.03g</u> 7.2-11.3
Naturals Timothy Balance® Cubes	<u>8.0</u> 6.0-8.0	<u>6.7</u> 5.7-6.7	<u>2.0</u> 1.5-2.0	<u>8.7</u> 7.2-9.7	<u>10.0%=45.40g</u> 7.5-10.0
Naturals Alfalfa Cubes	<u>8.0</u> 4.8-8.5	<u>6.3</u> 4.7-6.7	<u>3.0</u> 1.3-3.3	<u>9.3</u> 8.0-11.0	<u>11.0%=49.94g</u> 8.1-12.8
Naturals Alfalfa-Timothy Cubes	<u>8.2</u> 5.5-8.7	<u>6.5</u> 4.4-6.7	<u>3.8</u> 2.4-4.6	<u>10.3</u> 6.8-11.3	<u>12.0%=54.48g</u> 7.3-13.3
Naturals Golden Ground Flax	<u>4.0</u> 3.8-4.6	<u>3.8</u> 2.4-4.5	<u>3.9</u> 0.10-4.6	<u>7.7</u> 3.4-8.8	<u>7.9%=35.86g</u> 3.6-8.9
Naturals Rice Bran	<u>7.9</u> 7.2-8.3	<u>6.3</u> 6.2-7.5	<u>21.2</u> 20.8-24.8	<u>27.5</u> 22.1-29.7	<u>29.1%=132.11g</u> 24.1-29.5

AVERAGE CARBOHYDRATE CHART NOTES

All feeds have fixed ingredient formulas. Values reflect an estimated analysis of multiple feed samples from across the U.S. with the understanding that geographic differences can impact the results.

When choosing a horse feed, select feed/forage with Low Starch + ESC values for horses to prevent tying up disease (EPSM, PSSM, RER), prevention of developmental orthopedic disease (DOD), calmer behavior and reduced insulin resistance for equine metabolic syndrome (EMS) and Cushing's disease. Also, forages with high NSC values (fructans) are more likely to cause laminitis.

WSC is water soluble carbohydrates, ESC is ethanol soluble carbohydrates, NSC is nonstructural carbohydrates and NSC = Starch + WSC.

*Estimated values determined by Equi-Analytical, Ithaca, NY. Equi-Analytical makes no claims with regard to the accuracy of the data. Link: <http://equi-analytical.com/common-feed-profiles/>

**The following coefficients of variation (cv) can be associated with the carbohydrate analyses. These should reasonably account for both sampling and analytical variation, though as you know, poor sampling can lead to much larger variation. The coefficients of variation (cv) for starch is 10%, WSC is 15% and ESC is 15%. For example, a feed with a WSC value of 10% should be expected to range from 8.5 – 11.5% and a WSC value of 20% to range from 17 – 23%. In addition, there are variables on ingredients between suppliers that could be as much as an additional 5% to 10% per ingredient.