

## Effect of a commercial anionic dietary supplement on urinary pH and concentrations of electrolytes and pH in blood of horses

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### Supplementary Table 1. Calculation of dietary cation-anion difference (DCAD) in feeds.

Shorthand equation for DCAD (mEq/kg DM):

$$\text{DCAD} = (\% \text{Na} * 435) + (\% \text{K} * 256) - (\% \text{Cl} * 282) - (\% \text{S} * 624)$$

<b>TIZWHIZ</b>	DCAD =	0.376	435	1.1	256	0.53	282	0.31	624
	DCAD =	102.3	mEq/kg DM						
<b>SOYCHLOR</b>	DCAD =	0.042	435	0.61	256	10.32	282	0.43	624
	DCAD =	-3004	mEq/kg DM						
<b>MIX HAY</b>	DCAD =	0.053	435	1.84	256	0.85	282	0.27	624
	DCAD =	85.92	mEq/kg DM						

**Supplementary table 2. Calculations used to estimate the dietary cation-anion difference (DCAB) of different diets.**
**Control Diet - TizWiz + Mix hay**
**OPTION 1: Diet in Proposal (1.5% BW as hay + 0.25% BW as grain)**

	% BW (DM basis)	% of total intake	DCAB of feed (mEq/kg DM)	DCAB of total diet (mEq/kg DM)	%DM in feed	Amount to feed (% BW, as-fed basis)	Example calculation of amount to feed for 500 kg horse
Mix Hay	1.50	85.71	85.92	73.65	80.2	<b>1.87</b>	9.35 kg/d
TizWiz	0.25	14.29	102.26	14.61	89.30	<b>0.28</b>	1.40 kg/d
Total	1.75	100.00		<b>88.25</b>			

**0 mEq diet - TizWiz + Mix hay**
**OPTION 1: Diet in Proposal (1.5% BW as hay + 0.25% BW as grain)**

	% BW (DM basis)	% of total intake	DCAB of feed (mEq/kg DM)	DCAB of total diet (mEq/kg DM)	%DM in feed	Amount to feed (% BW, as-fed basis)	Example calculation of amount to feed for 500 kg horse
Mix Hay	1.50	83.27	85.92	71.54	80.2	<b>1.87</b>	9.35 kg/d
TizWiz	0.25	13.88	102.26	14.19	89.30	<b>0.28</b>	1.40 kg/d
Soychlor	0.0514	2.85	-3006	-85.77	88.60	<b>0.0580</b>	290.07 grams/d
Total	1.801	100.00		<b>-0.04</b>			

**-40 mEq diet - TizWiz + Mix hay**
**OPTION 1: Diet in Proposal (1.5% BW as hay + 0.25% BW as grain)**

	% BW (DM basis)	% of total intake	DCAB of feed (mEq/kg DM)	DCAB of total diet (mEq/kg DM)	%DM in feed	Amount to feed (% BW, as-fed basis)	Example calculation of amount to feed for 500 kg horse
Mix Hay	1.50	82.15	85.92	70.58	80.2	<b>1.87</b>	9.35 kg/d
TizWiz	0.25	13.69	102.26	14.00	89.30	<b>0.28</b>	1.40 kg/d
Soychlor	0.076	4.16	-3006	-125.11	88.60	<b>0.0858</b>	428.89 grams/d
Total	1.826	100.00		<b>-40.53</b>			