

## STRAIGHTS FOR BALANCING DIETS

KW Forage Systems have a wide range of straight available in bulk loads to increase dry matter intakes and energy density, also to balance protein and fibre levels in cattle and sheep diets.

### Straights Available:

STRAIGHT	DRY MATTER %	ME (MJ/Kg DM)	OIL %	NDF %	STARCH %	SUGAR %	CRUDE PROTEIN %
Citrus Pulp	90	12.3	2.5	21	0.2	24	7
Sugar Beet Pulp	89	12.5	1	39	0	7	9.5
Soya Hulls	88	11.8	2.5	60	6	2	12
Maize Meal (Maizecor)	85	14.6	9	17.5	52	3	8.5
Soya Bean Meal	90	13.6	2.4	11	5	11	54
Scottish Distillers Barley	90	13	9	41	4	2	26

#### CITRUS PULP:

Produced from orange flesh, peels and pips and other citrus fruits such as lemons, limes, grapefruit and tangerines. Palatability is good and it has similar levels of fibre and energy density to sugar beet pulp nuts. The fibre has good digestibility and has a buffering effect in the rumen. Also Citrus contain around 25% sugar, which help provide energy to rumen micro flora.

#### SUGAR BEET PULP:

Sugar beet is grown to produce sugar. It is crushed and extracted to remove sugars. Sugar beet pulp contains the remaining fibre, tops, roots, processing residues and beet molasses. 90% of the fibre is digestible for ruminants. Beet pulp helps to stabilise rumen pH, and encourages feed intakes of less palatable feeds. Beet pulp is also a ready to use feed without milling or rolling. Beet pulp is more consist than citrus pulp feeds and is higher in protein which can help reduce expensive protein feeds.

#### SOYA HULLS:

Soya Beans are dehulled and pelleted and sold as meal. They are a good source of digestible fibre and have average protein. Soya hulls have a reasonable source of energy also. Inclusion rate for cattle is up to 25% in most concentrate mixes.

#### MAIZE MEAL (MAIZECOR):

Maizecor is produced from imported maize. It is a floury meal with small particles of maize grain. It is very high in starch, with excellent energy density. It is fed to dairy cattle (up to 4kg) to drive on milk production and is very effective at maintaining high solids in milk. Maizecor also promotes fast growth in finishing beef cattle and is more acid friendly in the rumen in comparison to rolled wheat.

#### SOYA BEAN MEAL:

Soya bean is crushed and produced into oil, meal and hulls. Soya bean meal is probably the best quality vegetable protein used in Europe. It is very high in protein and energy and has a good amino acid profile. Soya bean meal is also a good source of vitamins and minerals and contains high levels of phosphorous.

#### SCOTTISH DISTILLERS BARLEY:

Distillers is a by-product of Scottish whiskey. It's a firm fibrous 6mm pellet, which is a very good source of protein and energy density for feeding to dairy cows and beef cattle. Up to 4 kilograms a day can be fed to Dairy cows and up to 25% inclusion rate in beef cattle diets.