

Feedstuff Table

Composition and feeding value
of feedstuffs for cattle

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English version

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Preface

To ensure optimal cattle feeding it is important to know the exact composition and feeding values of the individual feedstuffs. In many situations e.g. feed planning it is not possible, to analyse all the feedstuffs so it is necessary to a large extent to use standard values for the feedstuffs. The Feedstuff Table is an important and indispensable tool in this connection.

This Feedstuff Table is based on chemical analyses, experiments, scientific literature and also other feedstuff tables. As this Table is not always founded on measured values, it should be considered a tool comprising standard values.

The contents and evaluation principles of this Feedstuff Table correspond with the cattle programs of the Integrated Farm Management System.

The collection and processing of data have been conducted jointly by staff at The Danish Institute of Agricultural Sciences and The National Committee on Danish Cattle Husbandry. The Feedstuff Table is thus an important and visible result of a profitable cooperation between these institutions.

We thank the Danish Plant Directorate for willingly contributing data from chemical analyses of commercial feeds.

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Evaluation principles

The evaluation principles on which the calculated feed values are based appear from the following paragraphs. These principles are used to evaluate feed values in the Integrated Farm Management System (in Danish: BEDRIFTSLØSNING).

Energy

The energy value, Scandinavian Feed Units (SFU) is evaluated for all feed codes according to the principles below (Weisbjerg & Hvelplund, 1993; Ellermann, 1999):

SFU per kg dry matter (DM) is estimated as follows:

$$\text{SFU per kg DM} = -0.369 + 0.0989 \times \text{digestible energy (MJ/kg DM)} - 0.347 \times \text{crude fibre (kg/kg DM)}$$

Digestible energy (MJ/kg DM) is estimated as follows:

Digestible energy (MJ/kg DM) =

$$\begin{aligned} & 24.237 \times \text{digestible crude protein (kg/kg DM)} \\ + & 34.116 \times \text{digestible crude fat (kg/kg DM)} \\ + & 17.300 \times \text{digestible carbohydrates (kg/kg DM)} \\ - & 0.766 \times \text{sugar (kg/kg DM)} \end{aligned}$$

where

$$\text{Digestible crude protein (kg/kg DM)} = (0.93 \times \% \text{ crude protein in DM} - 3)/100$$

$$\text{Digestible crude fat (kg/kg DM)} = (0.96 \times \% \text{ crude fat in DM} - 1)/100$$

$$\text{Digestible carbohydrates (kg/kg DM)} = (\text{digestibility of organic matter} / 100) \times (100 - \% \text{ crude ash in DM}) / 100 - \text{digestible crude protein} - \text{digestible crude fat}$$

The correction for sugar is made only for feeds where the sugar content exceeds 20% of the DM content.

Digestible crude protein in grass pellets is calculated on the basis of the formulas on page 6.

The digestibility of organic matter (DOM) is the predicted in vivo digestibility in sheep at maintenance level as calculated on page 7.

The calculation of energy value must be used with some caution if the digestibility is very low, for instance in rye straw and red fescue straw as the digestibility of these two straws are not within the limits of application of the formula used.

If urea or other NPN compounds (Non-Protein-Nitrogen) has been added to feed mixtures, correction has to be made in the content of energy calculated from the analysis of enzyme solubility of organic matter (ESOM) (Ellermann, 1999; Møller & Flye, 1999).

Protein

Digestible crude protein, in general

The amount of digestible crude protein is generally estimated as follows (Thomsen, 1979):

$$\text{Digestible crude protein (\% of DM)} = 0.93 \times \% \text{ crude protein in DM} - 3$$

Digestible crude protein, dehydrated green crops

Digestible crude protein in grass pellets and artificial dried hay is estimated as follows (Frederiksen, 1969):
Digestible crude protein (% of DM) = 0.909 x % crude protein of DM - 4.46

Digestible crude protein in lucerne pellets and artificial dried lucerne hay is estimated as follows (Frederiksen, 1969):

Digestible crude protein (% of DM) = 0.909 x % crude protein of DM - 3.94

AAT and PBV

Amino acids absorbed in the small intestine (AAT) and the protein balance in the rumen (PBV) are estimated as follows (Hvelplund & Madsen, 1990; Hvelplund et al., 1992; Madsen et al., 1995):

AAT (g/kg DM) = $A \times (1 - B/100) \times C \times D/100 + (E \times F \times G)$

PBV (g/kg DM) = $(A \times B/100) - (E \times F/H)$

where

A = crude protein (g/kg DM)

B = effective rumen degradability of protein (% of N). In general, table values are used but for certain feedstuffs the value can be analysed or estimated as stated on page 8.

C = proportion of amino acids in rumen undegraded protein

= Constant = 0.85 for concentrates (feed codes 2-270, 290, 295-297, 301-350, 908-911)

= Constant = 0.65 for roughages (feed codes 271-289, 291-294, 298-299, 351-717, 781-799)

D = intestinal digestibility of rumen undegraded protein (%). Estimated by means of the formula on page 8.

E = synthesis of microbial amino acids (g/kg digestible carbohydrates)

Constant = 125, except for

Constant = 135 for fresh grass (feed codes 401-466)

F = digestible carbohydrates (kg/kg DM). Calculated by means of the formula on page 7.

G = digestibility of microbial amino acids. Constant = 0.85

H = proportion of amino acids in microbial protein. Constant = 0.70

Fat

Digestible crude fat

Digestible crude fat is generally estimated as follows (Weisbjerg et al., 1991):

Digestible crude fat (% of DM) = 0.96 x % crude fat in DM - 1

Fatty acids

The fatty acid content is estimated relative to the proportion of fatty acids in crude fat. Typically, 90% fatty acids are assumed for oil seeds, 80% for oil cakes and 70% for extracted meals. For cereals 70% are assumed, except for oats 80% and maize 90%. For roughages 65% fatty acids are generally assumed if there are no analyses.

Carbohydrates

The content of carbohydrates is estimated as follows:

$$\text{Carbohydrates (\% of DM)} = 100 - (\% \text{ crude ash in DM} + \% \text{ crude protein in DM} + \% \text{ crude fat in DM})$$

Digestible carbohydrate is estimated as follows:

$$\text{Digestible carbohydrate} = \text{digestible organic matter} - \text{digestible crude protein} - \text{digestible crude fat}$$

or as:

$$\text{Digestible carbohydrate} = \text{digestible cell walls} + \text{sugar} + \text{starch}$$

Digestible cell wall carbohydrates

The content of digestible cell wall carbohydrates is estimated as follows:

$$\text{Digestible cell wall carbohydrates} = \text{digestible organic matter} - (\text{digestible crude protein} + \text{digestible crude fat} + \text{sugar} + \text{starch})$$

NDF

The NDF (neutral detergent fibre) values express the analysed content of cell wall substances. The roughage NDF values originate from Danish analyses mainly, whereas the other NDF values in the Table mainly originate from foreign feed tables.

Digestibility

Digestibility of organic matter (DOM)

DOM expresses in vivo digestibility, i.e. digestibility in sheep fed at maintenance level. The present DOM values are either measured in sheep or estimated on the basis of in vitro or ESOM analyses using the formulas below.

Fresh and ensiled grass, clover grass, lucerne, barley-pea whole crop and pea whole crop, as well as ensiled maize, barley and wheat whole crop and finally hay, green hay and seed grass straw (Møller et al., 1989):

$$\text{DOM (\%)} = 4.10 + 0.959 \times \text{In vitro solubility of organic matter (\%)}$$

Fresh maize, barley and wheat whole crop (Søegaard & Weisbjerg, 2000):

$$\text{DOM (\%)} = 26.6 + 0.650 \times \text{ESOM (\%)}$$

Cereal straw (Hvelplund et al., 2000):

$$\text{DOM (\%)} = 22.0 + 0.752 \times \text{ESOM (\%)}$$

Concentrate mixtures, individual feedstuffs (only concentrates) as well as grass and lucerne pellets (Weisbjerg & Hvelplund, 1993):

$$\text{DOM (\%)} = 5.38 + 0.867 \times \text{ESOM (\%)}$$

The ESOM method is probably overestimating DOM for grass and lucerne pellets.

Crude protein

$$\text{Digestibility of crude protein (\%)} = 93 - 300/\% \text{ crude protein of DM (Thomsen, 1979)}$$

Grass pellets, see page 6.

Crude fat

$$\text{Digestibility of crude fat (\%)} = 96 - 100/\% \text{ crude fat of DM (Weisbjerg et al., 1991)}$$

Carbohydrates

$$\text{Digestibility of carbohydrates (\%)} = (\text{digestible organic matter (kg/kg DM)} - (\text{digestible crude protein (kg/kg DM)} + \text{digestible crude fat (kg/kg DM)})) \times 100/\text{carbohydrates (kg/kg DM)}$$

Degradability of protein

The degradability of protein (EPD, %) is in most cases determined by means of the nylon bag method.

For the feedstuffs below EPD values can be calculated on the basis of buffer solubility using the following formulas (Flye et al., 1998; Møller et al., 2000):

High-fat rapeseed cake (crude fat > 7%)	$EPD (\%) = 18.3 + 1.55 \times S - 0.010 \times S^2$
Low-fat rapeseed cake (crude fat < 7%)	$EPD (\%) = 32.0 + 1.73 \times S - 0.023 \times S^2$
Sunflower cake and meal	$EPD (\%) = 32.1 + 0.83 \times S$
Distillers grain, maize based	$EPD (\%) = 4.5 + 1.77 \times S$

where S = buffer solubility, % of N

For grass and clover grass from pastures the EPD values are calculated on the basis of DOM using the following formula (Weisbjerg & Søegaard, 2000): $EPD (\%) = 12.1 + 0.740 \times DOM (\%)$

Intestinal digestibility of feed protein

Original protein in the intestine

The true intestinal digestibility of original feed protein is determined by means of mobile nylon bags, which passes through the intestine. If no determination is available, the value is assumed to be 93.

For grass and clover grass from pastures (feed codes 401 - 442, 458 and 464-466) the true intestinal digestibility is estimated for original feed protein on the basis of the following formula (Weisbjerg & Søegaard, 2000):

$PO (\%) = 64.9 + 0.332 \times DOM (\%)$, where
PO = True intestinal digestibility of original feed protein in %

Undegraded protein in the intestine

The true intestinal digestibility of undegraded protein is estimated on the basis of the ruminal degradability of protein and the true intestinal digestibility of original feed protein (Hvelplund et al., 1992):

$TDN (\%) = (((100 - EPD) - (100 - PO)) \times 100) / (100 - EPD)$

where TDN = true intestinal digestibility of undegraded protein
EPD = ruminal degradability of protein in %
PO = true intestinal digestibility of original feed protein in %

The intestinal digestibility of undegraded protein in straw is assumed to be 0.

Chewing time

The standard chewing time of finely ground concentrate feeds is 4 minutes per kg dry matter. Coarsely ground concentrate feeds have a chewing time of 10 minutes per kg dry matter. In the Table 4 minutes are used for all concentrates.

As regards roughages the chewing time is estimated relative to degree of chopping and content of crude fibre (Nørgaard, 1983):

Chewing time (minutes/kg DM) = $F \times 3 \times \% \text{ crude fibre in DM}$
where the factor "F" expresses the degree of chopping of the feed.

Examples of F:

- 0.25: Beets and fresh or ensiled beet pulp
- 0.60: Finely chopped maize silage
- 0.75: Finely chopped silage of grass and whole crop
- 1.00: Long hay and straw as well as fresh grass

Fill

Fill factor cows, FFK

Fill factor cows (FFk) is a fixed factor for concentrates and is calculated for roughages on the basis of energy concentration (Kristensen, 1983; Kristensen & Kristensen, 1987).

1. Concentrates

Concentrates, dehydrated by-products, grass pellets and cobs as well as animal products:

$$\text{FFk/kg DM} = 0.22$$

2. Grass and green crops

Fresh crops, hay and silages of grass, clover grass, green cereal crops and mixed green crops with <25% DM at harvest, plus pure legume crops (except for peas and field beans):

$$\text{FFk/kg DM} = 0.85 - 0.44 \times \text{SFU/kg DM},$$

where corrections must be made for content of legumes (BP, %):

$$\text{FFk}_{\text{BP}}/\text{kg DM} = \text{FFk (uncorrected)} / (1 + 0.002 \times \text{BP}), \text{ and}$$

for DM content (DM, %) in silage for DM < 30%:

$$\text{FFk}_{\text{DM}}/\text{kg DM} = \text{FFk-uncorrected (or FFk}_{\text{BP}}) / (1 - (30 - \text{DM}) \times 0.015)$$

3. Whole crops

Fresh and ensiled whole crops of pure cereals, peas, field beans, maize, mixtures of cereals and legumes with >25% DM at harvest:

$$\text{FFk/kg DM} = 0.79 - 0.44 \times \text{SFU/kg DM},$$

where corrections must be made for content of legumes (BP, %):

$$\text{FFk}_{\text{BP}}/\text{kg DM} = \text{FFk-uncorrected} / (1 + 0.0005 \times \text{BP}), \text{ whereas whole crops are not corrected for dry matter content.}$$

Fill factor young stock, FFu

Fill factor young stock (FFu) is calculated on the basis of the energy concentration of the feedstuffs (EC, FU/kg DM) as the feedstuffs are subdivided into the following three categories (Ingvarsen, 1992a):

1. Concentrates and finely ground roughages:

$$\text{FFu}_{\text{EC}}/\text{kg DM} = 1.05$$

3. Long straw:

$$\text{FFu}_{\text{EC}}/\text{kg DM} = 1.85 - 1.31 \times \text{EC} + 0.55 \times \text{EC}^2, \text{ for } 0.25 \leq \text{EC} \leq 0.85$$

4. Chopped straws, fresh grass, silages of finely chopped grass, maize and whole crops with > 50% DM < 5 g butyric acid/kg DM and beet top silages:

$$\text{FFu}_{\text{EC}}/\text{kg DM} = 1.68 - 1.12 \times \text{EC} + 0.50 \times \text{EC}^2$$

with corrections shown below.

If grass silage is harvested using a forage harvester or a self-loading forage wagon instead of a field chopper, the fill is expected to be about 12% higher than calculated (Ingvarsen, 1992b).

Corrections for content of legumes (BP, %), DM content of the silage as well as for silage quality in the form of butyric acid content (SS, g/kg DM) are made as follows:

Correction for content of legumes:

$$\Delta\text{FFu}_{\text{BP}}/\text{kg DM} = \text{FFu}_{\text{EC}}/(1 + 0.002 \times \text{BP}) - \text{FFu}_{\text{EC}}$$

Correction for DM content in grass silage:

$$\Delta\text{FFu}_{\text{DM}}/\text{kg DM} = \text{FFu}_{\text{EC}}/(0.383 + 0.0247 \times \text{DM} - 0.000247 \times \text{DM}^2) - \text{FFu}_{\text{EC}}$$

for $17 \leq \text{DM} \leq 50$

The correction for DM content in whole crop and maize silages is calculated in the same way as for grass silages after adding 10 to the DM content:

$$\Delta\text{FFu}_{\text{DM}}/\text{kg DM} = \text{FFu}_{\text{EC}}/(0.383 + 0.0247 \times (\text{DM} + 10) - 0.000247 \times (\text{DM} + 10)^2) - \text{FFu}_{\text{EC}}$$

for $17 \leq (\text{DM} + 10) \leq 50$

Correction for butyric acid (SS) content of silage:

$$\Delta\text{FFu}_{\text{SS}}/\text{kg DM} = \text{FFu}_{\text{EC}}/(65 - 0.256 \times (\text{SS} - 5))/65 - \text{FFu}_{\text{EC}}$$

for $\text{SS} > 5 \text{ g/kg DM}$

In this Feed Table no corrections are made for butyric acid content.

After correcting for content of legumes, dry matter content as well as butyric acid content, if any, the FFu value is calculated by adding the corrections to FFu_{EC} :

$$\text{FFu} = \text{FFu}_{\text{EC}} + \Delta\text{FFu}_{\text{DM}} + \Delta\text{FFu}_{\text{BP}} + \Delta\text{FFu}_{\text{SS}}$$

Macro-minerals, micro-minerals and vitamins

Macro-minerals are expressed in g per kg dry matter, micro-minerals in mg per kg dry matter and vitamins in either international units IU (vitamins A and D) or mg (beta-carotene and vitamin E).

Vitamin A is calculated as follows:

$$1 \text{ mg carotene} = 400 \text{ IU vitamin A}$$

CAB is an abbreviation for cation-anion-balance of a feed and based on the feed content of sodium, potassium, chlorine and sulphur (g/kg DM) and it is calculated as follows (Nørgaard, 1992):

$$\text{CAB (meq/kg DM)} = ((\text{Na}/23.0 + \text{K}/39.1) - (\text{Cl}/35.5 + \text{S}/16.0)) \times 1.000$$

Concentrate mixtures	A-5 105-0-40	A-5 98-30-40	A-6 100-45-55	A-11 95-50-85	A-8 100-65-65		B-7 108-100-55		
Feed number	2	3	4	5	7		11		
Dry matter, pct	88.0	89.0	89.0	89.0	89.0		89.0		
% in dry matter:									
Ash	7.2	7.8	8.0	7.5	8.0		8.5		
Crude protein	18.4	20.5	22.4	24.3	26.0		31.0		
Digestible crude protein	14.1	16.1	17.8	19.6	21.2		25.8		
AAT (amino acids absorbed)	11.8	10.8	11.1	11.9	11.8		12.7		
PBV (protein balance rumen)	0.0	3.3	5.0	6.3	7.7		11.5		
Crude fat	5.6	5.6	6.7	12.4	8.9		7.9		
Digestible crude fat	4.4	4.4	5.4	10.9	7.5		6.6		
Fatty acids	4.5	4.5	5.6	10.6	7.7		6.4		
Iodine number	80	80	80	80	80		80		
Carbohydrates	68.8	66.1	62.9	55.8	57.1		52.6		
Crude fiber	14.0	15.0	14.0	13.0	12.0		11.0		
Sugar	7.5	8.0	8.0	7.0	7.5		8.0		
Starch	18.0	18.0	17.0	14.0	14.0		13.0		
Digestible cell wall carbohydr. NDF	35.8	31.9	28.1	27.1	27.1		22.5		
Digestibility coefficients									
Crude protein	77	78	80	81	81		83		
EPD (% of N)	60	67	65	61	63		62		
Original protein in the intestine	95	95	94	95	94		93		
Undegraded protein in the intes.	87	83	82	86	84		82		
Crude fat	78	78	81	88	85		83		
Carbohydrates	89	88	84	86	85		83		
Organic matter	86.0	85.0	83.0	85.0	84.0		83.0		
Minerals, per kg dry matter									
Calcium, g	7.5	8.0	7.0	7.5	7.0		8.5		
Phosphorus, g	6.0	6.5	6.0	6.5	6.0		8.5		
Magnesium, g	3.0	4.0	3.0	3.5	3.0		3.5		
Potassium, g	13.0	13.0	13.0	13.0	13.0		13.0		
Sodium, g	3.5	3.4	3.5	4.0	3.4		3.5		
Chloride, g									
Sulfur, g	3.9	3.9	3.9	3.9	3.9		4.8		
CAB, meq (cat-anion-balance)									
Iron, mg	360	360	360	360	360		490		
Manganese, mg	90	90	90	90	90		75		
Zink, mg	70	70	70	70	70		85		
Copper, mg	17	17	17	17	17		17		
Cobalt, mg									
Selenium, mg									
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4		4		
FFk, fill cows	0.22	0.22	0.22	0.22	0.22		0.22		
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05		1.05		
Energy									
Dig. energy, MJ per kg dry matter	15.5	15.4	15.4	16.8	16.1		16.0		
SFU per kg dry matter	1.12	1.10	1.10	1.25	1.18		1.18		
Content per SFU									
Kg dry matter	0.89	0.91	0.91	0.80	0.85		0.85		
Kg feed	1.02	1.02	1.02	0.90	0.95		0.95		
Digestible crude protein, g	126	146	162	157	179		219		
AAT, g	105	98	100	95	100		108		
PBV, g	0	30	45	50	65		98		
Fatty acids, g	40	41	51	85	65		54		
Sugar, g	67	73	73	56	63		68		
Starch, g	161	163	154	112	118		110		
Digestible cell wall carbohydr., g	321	290	255	218	229		191		
FFk, fill cows	0.20	0.20	0.20	0.18	0.19		0.19		
FFu, fill young stock	0.94	0.95	0.95	0.84	0.89		0.89		
Chewing time, minutes	4	4	4	3	3		3		

Concentrate mixtures	C-13 100-120-90	C-8 105-145-60	C-11 100-135-80	C-6 120-135-50		Calf starter	Calf mixtures	Calf mixtures	
Feed number	15	19	20	31		60	61	62	
Dry matter, pct	90.0	90.0	90.0	90.0		87.0	87.0	89.0	
% in dry matter:									
Ash	8.2	8.6	8.6	9.0		7.0	8.0	18.0	
Crude protein	35.8	36.5	35.9	36.5		17.2	21.8	36.0	
Digestible crude protein	30.3	30.9	30.4	30.9		13.0	17.3	30.5	
AAT (amino acids absorbed)	13.6	12.8	12.9	14.1		10.2	11.7	13.7	
PBV (protein balance rumen)	16.3	17.6	17.3	15.8		0.9	3.6	16.1	
Crude fat	14.4	8.9	12.2	6.7		5.7	5.2	9.0	
Digestible crude fat	12.9	7.5	10.7	5.4		4.5	4.0	7.6	
Fatty acids	12.2	7.3	10.3	5.9		4.8	4.0	7.5	
Iodine number	64	70	85	84		80	80	80	
Carbohydrates	41.6	46.0	43.3	47.8		70.1	65.0	37.0	
Crude fiber	10.0	11.5	11.5	12.0		9.2	6.9	9.0	
Sugar	9.0	8.5	7.8	8.0		8.0	8.0	9.6	
Starch	5.0	6.0	5.7	3.0		34.5	35.6	6.0	
Digestible cell wall carbohydr. NDF	20.9	22.0	21.7	27.2		18.2	14.3	15.2	
Digestibility coefficients									
Crude protein	85	85	85	85		76	79	85	
EPD (% of N)	63	66	66	62		68	64	60	
Original protein in the intestine	95	95	96	94		94	94	94	
Undegraded protein in the intes.	87	84	88	85		81	83	85	
Crude fat	89	85	88	81		78	77	85	
Carbohydrates	84	79	81	80		87	89	83	
Organic matter	85.0	82.0	83.5	82.0		84.0	86.0	84.0	
Minerals, per kg dry matter									
Calcium, g	9.0	8.5	8.5	8.5		9.8	11.5	43.8	
Phosphorus, g	9.0	8.5	8.5	8.5		4.8	6.0	10.1	
Magnesium, g	4.0	4.0	4.0	4.0		1.7	2.5	4.0	
Potassium, g	15.0	16.0	16.0	16.0		9.8	10.0	20.0	
Sodium, g	4.0	4.0	4.0	4.0		4.8	2.3	5.6	
Chloride, g									
Sulfur, g	4.8	4.8	4.8	4.8		2.2	2.4	4.0	
CAB, meq (cat-anion-balance)									
Iron, mg	490	490	490	490		250	250	350	
Manganese, mg	75	75	75	75		70	70	100	
Zink, mg	85	85	85	85		90	90	150	
Copper, mg	17	17	17	17		35	35	50	
Cobalt, mg									
Selenium, mg						0.23	0.23	0.90	
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4		4	4	4	
FFk, fill cows	0.22	0.22	0.22	0.22		0.25	0.22	0.22	
FFu, fill young stock	1.05	1.05	1.05	1.05		1.05	1.05	1.05	
Energy									
Dig. energy, MJ per kg dry matter	17.8	16.4	17.1	16.0		15.2	15.6	15.3	
SFU per kg dry matter	1.35	1.21	1.28	1.17		1.10	1.15	1.11	
Content per SFU									
Kg dry matter	0.74	0.83	0.78	0.86		0.91	0.87	0.90	
Kg feed	0.82	0.92	0.87	0.95		1.05	1.00	1.01	
Digestible crude protein, g	224	255	237	265		118	151	273	
AAT, g	100	105	100	120		93	102	123	
PBV, g	120	145	135	135		8	32	145	
Fatty acids, g	90	60	80	50		44	35	67	
Sugar, g	67	70	61	68		73	70	86	
Starch, g	37	50	44	26		314	311	54	
Digestible cell wall carbohydr., g	154	181	169	233		165	124	136	
FFk, fill cows	0.16	0.18	0.17	0.19		0.23	0.19	0.20	
FFu, fill young stock	0.78	0.87	0.82	0.90		0.96	0.92	0.94	
Chewing time, minutes	3	3	3	3		4	3	4	

Oil seed cakes and meal	Cotton-seed cake, decorticated	Cotton-seed cake, partly decorticated	Cotton-seed cake, not decorticated	Cotton-seed meal, partly decorticated	Linseed cake	Linseed meal	Ground-nut meal, partly decorticated	Coconut cake	Coconut meal
Feed number	101	102	103	105	111	114	125	131	134
Dry matter, pct	92.0	92.0	92.0	89.0	90.0	88.0	89.0	89.0	89.0
% in dry matter:									
Ash	7.3	6.9	5.3	6.6	8.9	6.8	6.3	6.9	7.3
Crude protein	51.5	42.4	27.9	45.1	35.3	39.5	51.0	23.6	23.7
Digestible crude protein	44.9	36.4	22.9	38.9	29.8	33.7	44.4	18.9	19.0
AAT (amino acids absorbed)	21.7	18.2	13.0	19.1	13.9	15.4	11.4	14.1	14.5
PBV (protein balance rumen)	20.9	16.7	9.2	18.1	14.4	16.4	32.5	2.2	1.5
Crude fat	3.5	3.5	6.6	1.8	8.1	1.8	1.2	8.4	2.0
Digestible crude fat	2.4	2.4	5.3	0.7	6.8	0.7	0.2	7.1	0.9
Fatty acids	2.8	2.8	5.3	1.3	6.5	1.3	0.8	6.7	1.4
Iodine number	110	110	110	110	190	190	90	10	10
Carbohydrates	37.7	47.2	60.2	46.5	47.7	51.9	41.5	61.1	67.0
Crude fiber	10.4	18.4	28.7	17.3	11.1	9.8	10.4	11.7	15.3
Sugar	5.4	5.4	5.4	5.4	5.4	5.4	8.5	15.0	15.0
Starch	1.5	1.5	1.5	1.5	2.6	2.6	5.0	5.0	5.0
Digestible cell wall carbohydr.	20.0	18.5	19.7	17.9	30.1	33.0	15.9	31.3	35.1
NDF			47		24		18	54	50
Digestibility coefficients									
Crude protein	87	86	82	86	85	85	87	80	80
EPD (% of N)	50	50	50	50	60	60	74	48	48
Original protein in the intestine	93	93	93	93	93	93	93	91	91
Undegraded protein in the intes.	86	86	86	86	83	83	73	83	83
Crude fat	67	67	81	40	84	40	13	84	46
Carbohydrates	71	54	44	53	80	79	71	84	82
Organic matter	80.0	69.0	58.0	69.0	82.0	81.0	79.0	83.0	81.0
Minerals, per kg dry matter									
Calcium, g	2.2	2.2	2.2	2.1	3.7	3.9	1.5	1.4	1.1
Phosphorus, g	11.9	11.9	11.9	12.6	8.6	8.8	7.5	6.3	6.5
Magnesium, g	6.4	6.4	6.4	6.9	5.2	5.2	3.5	3.3	3.5
Potassium, g	18.0	18.0	18.0	19.0	11.0	11.0	13.0	23.0	23.0
Sodium, g	0.2	0.2	0.2	0.2	0.8	0.8	0.9	1.0	0.8
Chloride, g									
Sulfur, g									
CAB, meq (cat-anion-balance)									
Iron, mg	291	291	291	248	240	250	360	365	350
Manganese, mg	24	24	24	23	46	53	45	88	116
Zink, mg	71	71	71	77	88	89	44	55	53
Copper, mg	16	16	16	14	22	22	19	30	30
Cobalt, mg	0.35	0.35	0.35	0.35	0.35	0.35	0.25	0.25	0.25
Selenium, mg	0.29	0.29	0.29	0.30	0.09	0.09	0.25	0.15	0.15
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	16.3	14.0	12.0	14.0	16.1	15.5	15.9	15.9	14.5
SFU per kg dry matter	1.21	0.96	0.72	0.95	1.19	1.13	1.17	1.16	1.01
Content per SFU									
Kg dry matter	0.83	1.05	1.39	1.05	0.84	0.88	0.86	0.86	0.99
Kg feed	0.90	1.14	1.52	1.18	0.94	1.00	0.96	0.97	1.11
Digestible crude protein, g	371	381	320	409	251	298	380	163	189
AAT, g	179	190	182	201	117	136	97	121	144
PBV, g	173	174	128	190	121	145	278	19	15
Fatty acids, g	23	29	74	13	55	11	7	58	14
Sugar, g	45	57	75	57	45	48	73	129	149
Starch, g	12	16	21	16	22	23	43	43	50
Digestible cell wall carbohydr., g	165	194	275	188	253	292	136	269	348
FFk, fill cows	0.18	0.23	0.31	0.23	0.19	0.19	0.19	0.19	0.22
FFu, fill young stock	0.87	1.10	1.46	1.10	0.88	0.93	0.90	0.91	1.04
Chewing time, minutes	3	4	6	4	3	4	3	3	4

Oil seed cakes and meal	Coconut cake, rich in fat	Palm kernel cake	Rapeseed meal, 00, 4% fat	Rapeseed cake, 00, 10% fat	Rapeseed cake, 00, 10% fat, heat treated	Rapeseed cake, 00, 13% fat	Rapeseed cake, 00, 13% fat, heat treated	Mustard meal	Soya bean cake
Feed number	139	136	142	144	145	146	147	148	151
Dry matter, pct	93.0	92.0	87.5	89.0	89.0	89.0	89.0	87.0	88.0
% in dry matter:									
Ash	6.9	4.2	7.8	7.3	7.3	7.1	7.1	7.5	7.1
Crude protein	21.9	16.2	38.9	34.8	34.8	33.7	33.7	46.3	49.5
Digestible crude protein	17.4	12.1	33.1	29.4	29.4	28.3	28.3	40.1	43.0
AAT (amino acids absorbed)	13.2	10.7	12.4	14.2	15.7	12.3	13.7	13.5	18.2
PBV (protein balance rumen)	1.8	-1.3	18.9	13.2	11.4	14.6	12.9	25.3	24.6
Crude fat	13.7	10.9	4.6	11.2	11.2	14.6	14.6	1.0	3.7
Digestible crude fat	12.2	9.5	3.4	9.8	9.8	13.0	13.0	0.0	2.6
Fatty acids	11.0	8.7	3.2	9.0	9.0	11.7	11.7	0.7	3.0
Iodine number	10	20	115	115	115	115	115		135
Carbohydrates	57.5	68.7	48.8	46.6	46.6	44.6	44.6	45.2	39.7
Crude fiber	12.9	21.8	14.9	13.5	13.5	13.0	13.0	9.4	7.4
Sugar	15.0	3.0	9.7	10.1	10.1	10.1	10.1	10.0	12.3
Starch	5.0	0.0	6.4	2.5	2.5	2.5	2.5	2.5	6.2
Digestible cell wall carbohydr.	28.7	37.7	19.3	21.0	21.0	19.2	19.2	22.3	18.6
NDF	50	62	33	30	30	29	29		14
Digestibility coefficients									
Crude protein	79	74	85	84	84	84	84	87	87
EPD (% of N)	48	37	65	55	50	60	55	68	63
Original protein in the intestine	91	83	91	91	91	91	91	93	97
Undegraded protein in the intes.	83	73	74	80	82	78	80	78	92
Crude fat	89	87	74	87	87	89	89		69
Carbohydrates	85	59	73	72	72	71	71	77	93
Organic matter	84.0	65.0	78.0	78.5	78.5	78.7	78.7	80.9	89.0
Minerals, per kg dry matter									
Calcium, g	0.9	2.1	8.9	9.0	9.0	9.0	9.0	9.9	3.3
Phosphorus, g	6.0	6.5	12.0	11.2	11.2	11.2	11.2	11.0	7.3
Magnesium, g	3.4	3.1	4.8	4.5	4.5	4.5	4.5	5.0	3.2
Potassium, g	23.0	8.0	14.2	15.0	15.0	15.0	15.0	15.0	24.0
Sodium, g	0.8	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1
Chloride, g			0.7	0.7	0.7	0.7	0.7		
Sulfur, g			6.8	6.8	6.8	6.8	6.8		
CAB, meq (cat-anion-balance)			-64	-59	-59	-59	-59		
Iron, mg	356	935	434	174	174	174	174		193
Manganese, mg	109	255	74	67	67	67	67		44
Zink, mg	57	46	78	67	67	67	67		66
Copper, mg	25	24	6	6	6	6	6		19
Cobalt, mg	0.25	0.15	0.25	0.25	0.25	0.25	0.25		0.10
Selenium, mg	0.11	0.18	0.08	0.08	0.08	0.08	0.08		0.19
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg			5	25	25	25	25		5
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	16.8	13.2	15.3	16.3	16.3	16.8	16.8	15.7	17.7
SFU per kg dry matter	1.25	0.86	1.09	1.19	1.19	1.25	1.25	1.15	1.36
Content per SFU									
Kg dry matter	0.80	1.16	0.91	0.84	0.84	0.80	0.80	0.87	0.74
Kg feed	0.86	1.26	1.04	0.94	0.94	0.90	0.90	1.00	0.84
Digestible crude protein, g	139	140	303	246	246	227	227	347	317
AAT, g	106	124	113	119	132	98	110	117	134
PBV, g	15	-15	173	110	96	117	103	219	181
Fatty acids, g	88	101	29	75	75	94	94	6	22
Sugar, g	120	35	89	85	85	81	81	87	91
Starch, g	40	0	59	21	21	20	20	22	46
Digestible cell wall carbohydr., g	230	438	177	176	176	154	154	194	137
FFk, fill cows	0.18	0.26	0.20	0.18	0.18	0.18	0.18	0.19	0.16
FFu, fill young stock	0.84	1.22	0.96	0.88	0.88	0.84	0.84	0.91	0.77
Chewing time, minutes	3	5	4	3	3	3	3	3	3

Oil seed cakes and meal	Soya bean meal, decorticated	Soya bean meal	Sunflower cake, decorticated	Sunflower cake, partly decorticated	Sunflower meal, decorticated	Sunflower meal, partly decorticated	Sesame cake	Sesame meal	
Feed number	154	155	161	162	164	165	173	174	
Dry matter, pct	87.5	87.5	95.0	92.0	90.0	90.0	89.0	89.0	
% in dry matter:									
Ash	7.0	7.4	6.3	6.5	7.2	7.8	13.6	14.1	
Crude protein	53.7	49.1	37.9	32.6	41.7	35.2	46.5	49.4	
Digestible crude protein	47.0	42.7	32.2	27.3	35.8	29.7	40.2	42.9	
AAT (amino acids absorbed)	23.0	21.7	13.4	11.7	11.3	10.0	12.2	13.0	
PBV (protein balance rumen)	23.2	20.0	19.1	16.2	25.0	20.4	28.6	30.5	
Crude fat	2.9	3.2	13.2	12.5	3.0	3.2	5.7	1.3	
Digestible crude fat	1.7	2.1	11.6	11.0	1.9	2.1	4.5	0.2	
Fatty acids	2.0	2.2	10.5	10.0	2.1	2.2	4.6	0.9	
Iodine number	135	135	140	140	140	140			
Carbohydrates	36.5	40.2	42.6	48.4	48.1	53.8	34.2	35.2	
Crude fiber	4.8	7.2	16.3	22.8	18.3	23.6	8.9	7.6	
Sugar	12.1	12.1	6.9	6.9	6.9	6.9	10.0	10.0	
Starch	4.9	6.2	4.2	4.2	4.2	4.2	2.5	2.5	
Digestible cell wall carbohydr.	18.8	21.0	18.0	15.1	21.8	20.7	9.8	10.6	
NDF	10	14	28	38	28	38			
Digestibility coefficients									
Crude protein	87	87	85	84	86	84	87	87	
EPD (% of N)	55	55	64	64	74	74	70	70	
Original protein in the intestine	97	97	96	96	96	96	95	95	
Undegraded protein in the intes.	93	93	89	89	85	85	83	83	
Crude fat	61	65	88	88	63	65	78	19	
Carbohydrates	98	98	68	54	68	59	65	66	
Organic matter	90.8	90.8	77.9	69.0	76.0	69.0	77.5	77.2	
Minerals, per kg dry matter									
Calcium, g	3.7	3.7	3.7	4.3	4.5	3.7	18.9	18.9	
Phosphorus, g	7.1	7.1	11.1	13.0	13.5	10.4	11.4	11.4	
Magnesium, g	3.4	3.4	6.0	6.5	6.7	5.6	6.4	6.4	
Potassium, g	22.9	22.9	17.2	17.4	18.0	15.0	7.0	7.0	
Sodium, g	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	
Chloride, g	0.2	0.2	1.3	1.3	1.3	1.3			
Sulfur, g	4.0	4.0	4.6	4.8	4.9	4.9			
CAB, meq (cat-anion-balance)	334	334	124	119	123	49			
Iron, mg	429	429	240	240	240	240	235	235	
Manganese, mg	46	46	55	55	55	55	45	45	
Zink, mg	57	57	140	140	140	140	106	106	
Copper, mg	16	16	50	50	50	50	34	34	
Cobalt, mg	0.11	0.11	0.35	0.35	0.35	0.35	0.50	0.50	
Selenium, mg	0.11	0.11	0.13	0.13	0.15	0.15			
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg	5	5	10	10	10	10			
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	
Energy									
Dig. energy, MJ per kg dry matter	18.2	17.9	16.8	14.9	15.0	13.4	15.1	14.5	
SFU per kg dry matter	1.41	1.37	1.24	1.03	1.05	0.88	1.10	1.04	
Content per SFU									
Kg dry matter	0.71	0.73	0.81	0.97	0.95	1.14	0.91	0.96	
Kg feed	0.81	0.83	0.85	1.06	1.06	1.27	1.02	1.08	
Digestible crude protein, g	333	311	261	266	340	339	367	414	
AAT, g	163	158	108	114	107	114	112	125	
PBV, g	164	146	154	158	238	232	260	293	
Fatty acids, g	14	16	85	97	20	26	42	9	
Sugar, g	86	88	56	67	66	79	91	96	
Starch, g	35	45	34	41	40	48	23	24	
Digestible cell wall carbohydr., g	133	153	145	147	207	236	89	102	
FFk, fill cows	0.16	0.16	0.18	0.21	0.21	0.25	0.20	0.21	
FFu, fill young stock	0.74	0.77	0.85	1.02	1.00	1.20	0.96	1.01	
Chewing time, minutes	3	3	3	4	4	5	4	4	

Grain	Winter barley	Spring barley	Oats	Wheat	Maize	Sorghum	Rice	Rye	Triticale
Feed number	200	201	202	203	204	205	206	207	209
Dry matter, pct	85.0	85.0	85.0	85.0	86.0	86.0	86.0	85.0	85.0
% in dry matter:									
Ash	2.2	2.2	2.7	1.8	1.5	1.7	6.1	1.8	2.0
Crude protein	12.4	11.2	12.1	11.9	9.0	11.5	9.7	9.8	11.9
Digestible crude protein	8.5	7.4	8.3	8.1	5.4	7.7	6.0	6.1	8.1
AAT (amino acids absorbed)	9.8	9.8	7.8	10.8	13.1	14.4	12.9	10.1	10.6
PBV (protein balance rumen)	-4.2	-5.3	-1.0	-5.5	-11.3	-10.5	-10.0	-6.9	-5.2
Crude fat	2.8	2.9	5.7	2.2	4.6	3.5	2.5	1.8	2.2
Digestible crude fat	1.7	1.8	4.5	1.1	3.4	2.4	1.4	0.7	1.1
Fatty acids	2.0	2.1	4.6	1.6	4.1	2.5	1.8	1.2	1.6
Iodine number	120	120	110	105	120	115		105	105
Carbohydrates	82.6	83.6	79.5	84.1	84.9	83.3	81.7	86.7	83.9
Crude fiber	5.3	5.3	13.5	2.8	2.3	2.3	9.9	2.5	2.9
Sugar	2.0	2.0	1.8	3.2	1.7	1.1	0.0	7.0	3.2
Starch	60.1	60.9	47.8	68.0	71.2	74.9	69.1	64.0	66.7
Digestible cell wall carbohydr.	10.8	10.9	8.7	8.0	6.0	1.9	3.4	9.7	8.6
NDF	14	14	28	9	12			10	12
Digestibility coefficients									
Crude protein	69	66	68	68	60	67	62	62	68
EPD (% of N)	71	71	78	73	31	30	30	77	74
Original protein in the intestine	91	91	94	97	93	93	93	96	96
Undegraded protein in the intes.	69	69	73	89	90	90	90	83	85
Crude fat	61	62	78	51	74	67	56	39	51
Carbohydrates	88	88	73	94	93	94	89	93	94
Organic matter	85.0	85.0	73.0	90.0	89.0	89.5	85.1	89.0	89.5
Minerals, per kg dry matter									
Calcium, g	0.4	0.4	1.5	0.3	0.1	0.5		0.4	0.4
Phosphorus, g	3.0	3.0	4.1	2.8	3.0	3.1		3.4	4.2
Magnesium, g	1.3	1.3	1.3	0.9	1.2	1.4		1.0	1.3
Potassium, g	4.7	4.7	5.0	4.8	3.8	4.0		5.5	6.4
Sodium, g	0.2	0.2	0.1	0.1	0.1	0.1		0.1	0.1
Chloride, g	1.4	1.4	1.2	0.8	0.7			0.7	0.7
Sulfur, g	0.9	0.9	0.9	0.5	0.2			0.2	0.2
CAB, meq (cat-anion-balance)	33	33	43	73	69			113	136
Iron, mg	58	58	79	50	96	67		71	71
Manganese, mg	14	14	45	24	5	16		24	37
Zink, mg	31	31	40	26	28	27		33	56
Copper, mg	3	3	4	2	3	7		2	4
Cobalt, mg	0.01	0.01	0.01	0.01	0.10	0.10		0.01	0.01
Selenium, mg	0.04	0.04	0.03	0.06	0.06	0.12		0.03	0.03
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg	20	20	20	15	15			15	15
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	15.3	15.2	13.6	16.0	16.1	16.1	14.5	15.7	15.9
SFU per kg dry matter	1.12	1.12	0.93	1.21	1.22	1.22	1.03	1.17	1.20
Content per SFU									
Kg dry matter	0.89	0.90	1.07	0.83	0.82	0.82	0.97	0.85	0.84
Kg feed	1.05	1.05	1.26	0.97	0.96	0.95	1.13	1.00	0.98
Digestible crude protein, g	76	66	89	67	44	63	59	52	67
AAT, g	88	87	84	90	108	118	125	87	88
PBV, g	-38	-47	-10	-45	-93	-86	-98	-59	-44
Fatty acids, g	18	18	49	13	34	20	17	11	13
Sugar, g	18	18	19	26	14	9	0	60	27
Starch, g	536	546	514	563	585	614	672	546	558
Digestible cell wall carbohydr., g	96	98	94	66	49	16	33	82	72
FFk, fill cows	0.20	0.20	0.24	0.18	0.18	0.18	0.21	0.19	0.18
FFu, fill young stock	0.94	0.94	1.13	0.87	0.86	0.86	1.02	0.90	0.88
Chewing time, minutes	4	4	4	3	3	3	4	3	3

Seeds	Field beans	Linseed	Rapeseed, 00	Soya beans	Sweet lupin	Peas	Sunflower seeds		
Feed number	211	212	213	214	215	216	217		
Dry matter, pct	87.0	91.0	92.0	87.0	89.0	85.0	92.0		
% in dry matter:									
Ash	3.5	5.4	4.3	5.5	4.8	3.3	3.5		
Crude protein	31.4	23.2	21.6	40.8	45.3	24.8	18.4		
Digestible crude protein	26.2	18.6	17.1	34.9	39.1	20.1	14.1		
AAT (amino acids absorbed)	7.7	5.7	5.0	7.4	11.0	10.2	3.0		
PBV (protein balance rumen)	17.2	13.6	12.8	26.9	30.1	8.2	12.9		
Crude fat	1.3	38.1	48.0	20.8	4.9	2.0	36.4		
Digestible crude fat	0.2	35.6	45.1	19.0	3.7	0.9	33.9		
Fatty acids	0.9	34.3	43.2	18.7	4.2	1.4	32.8		
Iodine number		190	115	135		120	140		
Carbohydrates	63.8	33.3	26.1	32.9	45.0	69.9	41.7		
Crude fiber	8.5	7.5	9.1	5.8	16.3	6.4	25.0		
Sugar	2.6	2.6	6.0	5.0	5.0	5.0	2.3		
Starch	42.4	5.4	1.5	5.5	22.0	49.2	1.5		
Digestible cell wall carbohydr.	10.0	15.9	11.7	10.2	7.3	13.8	11.3		
NDF	17	14	3	15		12			
Digestibility coefficients									
Crude protein	83	80	79	86	86	81	77		
EPD (% of N)	86	77	75	75	80	82	85		
Original protein in the intestine	93	93	91	90	99	96	94		
Undegraded protein in the intes.	50	70	64	60	95	78	60		
Crude fat	19	93	94	91	76	46	93		
Carbohydrates	86	72	73	63	76	97	36		
Organic matter	84.4	82.5	85.0	79.0	81.1	92.0	65.4		
Minerals, per kg dry matter									
Calcium, g	2.3	2.8	4.5	2.6	3.6	0.8	2.2		
Phosphorus, g	6.2	5.7	6.7	6.3	7.5	4.9	6.1		
Magnesium, g	1.2	3.9	2.4	2.8	3.1	1.3	3.8		
Potassium, g	12.0	9.0	8.2	19.0	14.0	11.4	9.0		
Sodium, g	0.1	0.4	0.1	0.3	0.2	0.1	0.7		
Chloride, g			0.5	0.3		0.9			
Sulfur, g			1.3	2.3		0.7			
CAB, meg (cat-anion-balance)			119	346		227			
Iron, mg	81	153	87	160	98	79	205		
Manganese, mg	20	32	37	34	61	10	40		
Zink, mg	53	50	34	45	79	54	10		
Copper, mg	9	13	2	16	8	7	31		
Cobalt, mg	0.20	0.30	0.12	0.08		0.18	0.28		
Selenium, mg	0.02	0.35	0.04	0.10	0.11	0.02	0.14		
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg			150	35					
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4		
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22		
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05		
Energy									
Dig. energy, MJ per kg dry matter	15.9	20.8	22.8	18.5	16.7	16.9	17.6		
SFU per kg dry matter	1.18	1.66	1.86	1.44	1.22	1.28	1.29		
Content per SFU									
Kg dry matter	0.85	0.60	0.54	0.69	0.82	0.78	0.78		
Kg feed	0.98	0.66	0.58	0.80	0.92	0.92	0.85		
Digestible crude protein, g	222	112	92	242	319	156	110		
AAT, g	65	34	27	51	90	79	23		
PBV, g	146	82	69	186	246	64	101		
Fatty acids, g	8	207	232	130	34	11	255		
Sugar, g	22	16	32	35	41	39	18		
Starch, g	360	33	8	38	180	383	12		
Digestible cell wall carbohydr., g	85	96	63	71	60	107	88		
FFk, fill cows	0.19	0.13	0.12	0.15	0.18	0.17	0.17		
FFu, fill young stock	0.89	0.63	0.57	0.73	0.86	0.82	0.82		
Chewing time, minutes	3	2	2	3	3	3	3		

Milling products	Barley, decorticated	Barley sharps	Oats, decorticated	Oat middlings	Oat hulls	Wheat flour	Wheat bran	Wheat middlings	Wheat germ
Feed number	221	224	225	227	228	231	232	233	235
Dry matter, pct	88.0	88.0	88.0	89.0	90.0	86.0	87.0	87.0	88.0
% in dry matter:									
Ash	1.1	6.1	2.3	3.0	5.9	1.1	5.3	3.3	4.5
Crude protein	11.8	12.3	16.0	15.2	3.9	12.0	17.7	17.4	27.0
Digestible crude protein	8.0	8.4	11.9	11.1	0.6	8.2	13.5	13.2	22.1
AAT (amino acids absorbed)	10.4	7.7	8.5	8.2	6.3	11.0	7.9	10.5	11.4
PBV (protein balance rumen)	-5.8	-0.8	2.1	1.7	-6.7	-5.6	4.3	1.0	9.7
Crude fat	1.4	4.2	6.7	8.0	2.1	2.3	4.9	4.9	8.2
Digestible crude fat	0.3	3.0	5.4	6.7	1.0	1.2	3.7	3.7	6.9
Fatty acids	1.0	2.9	5.4	6.4	1.7	1.6	3.4	3.4	5.7
Iodine number	120	120	110	110	110	105	105	105	105
Carbohydrates	85.7	77.4	75.0	73.8	88.1	84.6	72.1	74.4	60.3
Crude fiber	0.8	15.8	3.3	3.5	31.6	0.7	9.3	4.8	4.8
Sugar	2.0	11.2	1.0	1.0	1.1	3.5	5.6	7.0	16.2
Starch	75.0	10.8	57.1	55.8	13.0	70.0	21.0	38.8	22.4
Digestible cell wall carbohydr. NDF	4.6	33.3	0.0	0.0	40.4	6.8	23.5 38	19.9	17.2
Digestibility coefficients									
Crude protein	68	69	74	73	16	68	76	76	82
EPD (% of N)	74	74	78	78	78	73	75	73	73
Original protein in the intestine	91	91	95	95	95	97	92	97	97
Undegraded protein in the intes.	65	65	77	77	77	89	68	89	89
Crude fat	25	72	81	84	48	53	76	76	84
Carbohydrates	95	72	77	77	62	95	69	88	93
Organic matter	91.0	71.2	77.2	77.0	59.6	90.7	71.0	85.4	88.8
Minerals, per kg dry matter									
Calcium, g	0.4	1.3	0.8	2.8	1.2	1.2	1.0	1.0	1.3
Phosphorus, g	3.8	4.4	4.6	5.4	4.4	2.1	12.4	7.4	11.2
Magnesium, g	1.4	1.6	1.3	1.4	1.0	0.5	4.2	2.5	3.1
Potassium, g	4.0	9.0	4.0	4.0	6.0	3.0	16.3	8.0	12.0
Sodium, g	0.2	0.2		0.1	0.3	0.1	0.1	0.1	0.1
Chloride, g							0.4		
Sulfur, g							0.4		
CAB, meq (cat-anion-balance)							385		
Iron, mg	44	187	56	82	103	34	134	101	114
Manganese, mg	15	36	40	43	37	15	100	73	165
Zink, mg	25	58	34	36	24	17	90	79	175
Copper, mg	3	4	4	4	2	3	11	12	11
Cobalt, mg					0.05	0.05	0.05	0.10	0.05
Selenium, mg	0.03	0.05	0.04	0.16	0.23	0.03	0.05	0.07	0.07
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	16.2	12.7	14.8	14.8	9.9	16.3	13.2	15.8	17.4
SFU per kg dry matter	1.23	0.83	1.08	1.08	0.50	1.24	0.90	1.18	1.33
Content per SFU									
Kg dry matter	0.81	1.21	0.92	0.92	1.99	0.81	1.11	0.85	0.75
Kg feed	0.93	1.37	1.05	1.04	2.21	0.94	1.27	0.97	0.85
Digestible crude protein, g	65	102	110	103	12	66	149	112	166
AAT, g	85	93	78	76	126	89	87	89	86
PBV, g	-48	-9	19	16	-133	-45	48	8	73
Fatty acids, g	8	36	50	59	33	13	38	29	43
Sugar, g	16	135	9	9	22	28	62	59	122
Starch, g	611	130	528	515	259	565	233	329	168
Digestible cell wall carbohydr., g	38	403	0	0	803	55	260	169	129
FFk, fill cows	0.18	0.27	0.20	0.20	0.44	0.18	0.24	0.19	0.17
FFu, fill young stock	0.86	1.27	0.97	0.97	2.09	0.85	1.16	0.89	0.79
Chewing time, minutes	3	5	4	4	8	3	4	3	3

Milling products	Maize feed meal	Maize gluten feed	Maize gluten	Maize germ	Maize bran	Maize flour	Maize starch	Rice, decorticated	Rice feed meal
Feed number	241	242	243	244	245	246	247	251	253
Dry matter, pct	89.0	90.0	91.0	90.0	88.0	87.0	88.0	87.0	88.0
% in dry matter:									
Ash	3.6	6.4	1.4	5.8	4.6	0.6	0.1	0.5	8.1
Crude protein	11.3	22.2	66.0	16.1	19.9	10.5	0.5	8.1	13.5
Digestible crude protein	7.5	17.7	58.4	12.0	15.5	6.8	-2.5	4.5	9.6
AAT (amino acids absorbed)	10.7	10.9	44.9	12.4	10.2	14.3	10.4	13.5	12.0
PBV (protein balance rumen)	-6.7	4.8	10.4	-1.7	2.9	-11.5	-16.9	-13.0	-4.0
Crude fat	7.4	4.6	6.8	21.3	3.5	2.1	0.1	1.0	14.7
Digestible crude fat	6.1	3.4	5.5	19.4	2.4	1.0	-0.9	0.0	13.1
Fatty acids	6.7	4.1	6.1	19.2	3.2	1.9	0.1	0.7	10.3
Iodine number	120	120	120	120	120	120	120		
Carbohydrates	77.7	66.8	25.8	56.8	72.0	86.8	99.3	90.4	63.7
Crude fiber	4.8	8.3	1.3	3.3	11.5	0.6	0.3	0.8	4.7
Sugar	4.6	3.3	0.0	9.0	6.0	4.4	0.1	0.0	4.0
Starch	53.2	18.3	15.0	28.3	25.0	78.4	96.4	85.0	41.0
Digestible cell wall carbohydr. NDF	10.5	36.1	11.8	0.0	20.6	0.0	-1.2	1.5	0.0
34									
Digestibility coefficients									
Crude protein	66	80	88	74	78	64		56	71
EPD (% of N)	49	68	23	31	61	31	31	30	30
Original protein in the intestine	85	93	98	93	89	93	93	93	93
Undegraded protein in the intes.	71	78	97	90	72	90	90	90	90
Crude fat	82	74	81	91	67	48			89
Carbohydrates	88	86	100	66	72	95	96	96	71
Organic matter	85.0	84.2	92.0	73.0	72.8	91.2	92.0	91.5	73.7
Minerals, per kg dry matter									
Calcium, g	0.3	0.3	0.4	0.2	0.5	0.1	0.4	0.3	3.0
Phosphorus, g	5.6	10.0	3.3	17.4	6.2	1.6	1.6	1.1	1.3
Magnesium, g	1.5	3.9	1.2	7.4	2.7	1.0	0.1	0.4	0.4
Potassium, g	7.0	13.3	1.0	17.0	8.0	2.0	1.0	6.0	1.0
Sodium, g	0.9	1.1	0.6				0.2		
Chloride, g	1.3	2.8							
Sulfur, g	0.2	1.8							
CAB, meg (cat-anion-balance)	166	200							
Iron, mg	80	189	266	114	90	12	11	14	16
Manganese, mg	16	22	8	45	20	3	2	11	10
Zink, mg	45	78	42	136	54	7	2	19	15
Copper, mg	3	7	18	7	3	1	1	3	3
Cobalt, mg	0.03	0.03	0.03	0.03	0.05	0.05			
Selenium, mg	0.12	0.24	0.09	0.09	0.06	0.16	0.03	0.04	0.04
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg		15							
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	15.7	15.4	20.7	16.0	13.5	16.3	15.6	16.1	14.6
SFU per kg dry matter	1.17	1.13	1.67	1.20	0.92	1.24	1.17	1.22	1.06
Content per SFU									
Kg dry matter	0.86	0.89	0.60	0.83	1.08	0.80	0.85	0.82	0.95
Kg feed	0.96	0.99	0.66	0.93	1.23	0.92	0.97	0.95	1.08
Digestible crude protein, g	64	157	349	100	168	54	-22	37	90
AAT, g	92	96	269	104	110	115	89	111	114
PBV, g	-57	43	62	-14	32	-93	-144	-107	-38
Fatty acids, g	57	36	37	160	34	15	1	6	97
Sugar, g	39	30	0	75	65	35	1	0	38
Starch, g	455	163	90	236	270	631	824	699	388
Digestible cell wall carbohydr., g	90	320	71	0	222	0	-10	12	0
FFk, fill cows	0.19	0.20	0.13	0.18	0.24	0.18	0.19	0.18	0.21
FFu, fill young stock	0.90	0.93	0.63	0.87	1.14	0.84	0.90	0.86	0.99
Chewing time, minutes	3	4	2	3	4	3	3	3	4

Milling products etc.	Rye bran	Rye middlings	Guar meal			Soya bean hulls	Cassava flour	Sweet potatoes	
Feed number	256	257	258			290	295	296	
Dry matter, pct	88.0	88.0	94.0			87.5	87.0	86.0	
% in dry matter:									
Ash	5.7	3.5	5.1			5.5	6.2	3.3	
Crude protein	16.7	16.8	42.6			12.6	3.2	5.8	
Digestible crude protein	12.5	12.6	36.6			8.7	0.0	2.4	
AAT (amino acids absorbed)	8.6	9.5	13.4			10.3	9.6	10.3	
PBV (protein balance rumen)	2.9	1.5	19.8			-6.1	-12.9	-11.3	
Crude fat	3.5	3.4	6.7			2.9	0.8	0.6	
Digestible crude fat	2.4	2.3	5.4			1.7	-0.2	-0.4	
Fatty acids	2.5	2.4	5.4			2.0	0.6	0.4	
Iodine number	105	105				130			
Carbohydrates	74.1	76.3	45.6			79.1	89.8	90.3	
Crude fiber	6.5	3.7	13.8			38.9	4.4	3.0	
Sugar	15.3	17.0	6.3			1.9	5.0	5.0	
Starch	16.7	18.0	5.0			0.7	75.0	75.0	
Digestible cell wall carbohydr.	23.9	29.2	33.0			69.9	4.7	6.0	
NDF						63	8		
Digestibility coefficients									
Crude protein	75	75	86			69		41	
EPD (% of N)	77	77	65			54	70	70	
Original protein in the intestine	96	96	89			78	93	93	
Undegraded protein in the intes.	83	83	69			52	77	77	
Crude fat	67	67	81			61			
Carbohydrates	75	84	97			92	94	95	
Organic matter	75.1	82.0	91.0			87.7	90.0	91.0	
Minerals, per kg dry matter									
Calcium, g	1.1	0.7				6.4	2.4		
Phosphorus, g	11.1	6.4				1.6	1.2		
Magnesium, g	3.5	1.9				2.9	1.3		
Potassium, g	16.0	9.0				14.9	9.0		
Sodium, g	0.1	0.1				0.1	0.2		
Chloride, g						0.3			
Sulfur, g						0.2			
CAB, meq (cat-anion-balance)						363			
Iron, mg	103	87				777			
Manganese, mg	58	45				34			
Zink, mg	82	72				57			
Copper, mg	11	9				10			
Cobalt, mg	0.05	0.05				0.35			
Selenium, mg	0.04	0.04				0.19			
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4			4	4	4	
FFk, fill cows	0.22	0.22	0.22			0.22	0.22	0.22	
FFu, fill young stock	1.05	1.05	1.05			1.05	1.05	1.05	
Energy									
Dig. energy, MJ per kg dry matter	13.5	14.9	18.4			15.2	14.6	15.3	
SFU per kg dry matter	0.95	1.10	1.40			1.00	1.06	1.14	
Content per SFU									
Kg dry matter	1.06	0.91	0.71			1.00	0.95	0.88	
Kg feed	1.20	1.04	0.76			1.14	1.09	1.02	
Digestible crude protein, g	133	115	261			87	0	21	
AAT, g	91	87	96			102	91	90	
PBV, g	30	13	141			-61	-122	-100	
Fatty acids, g	26	22	38			20	5	4	
Sugar, g	162	155	45			19	47	44	
Starch, g	177	164	36			7	710	660	
Digestible cell wall carbohydr., g	253	267	235			696	44	53	
FFk, fill cows	0.23	0.20	0.16			0.22	0.21	0.19	
FFu, fill young stock	1.11	0.96	0.75			1.05	0.99	0.92	
Chewing time, minutes	4	4	3			4	4	4	

By-products	Distillers grain, barley based, fresh	Distillers grain, barley based, dried	Distillers grain, maize based, dried	Malt sprouts	Brewer's grain, fresh	Brewer's grain, dried	Potato pulp	Molasses, beet	Molasses, cane
Feed number	261	262	263	265	266	267	273	277	278
Dry matter, pct	11.5	90.0	89.0	95.0	24.2	91.0	16.0	75.0	73.0
% in dry matter:									
Ash	5.6	5.6	6.7	6.4	4.2	3.9	5.6	11.5	14.2
Crude protein	36.0	36.0	29.2	28.9	27.8	28.7	8.5	12.9	5.5
Digestible crude protein	30.5	30.5	24.2	23.9	22.9	23.7	4.9	9.0	2.1
AAT (amino acids absorbed)	10.6	10.6	18.3	7.9	13.6	13.9	9.3	7.6	7.7
PBV (protein balance rumen)	19.2	19.2	1.5	12.8	6.3	7.2	-7.6	0.2	-7.4
Crude fat	7.0	7.0	10.7	2.8	10.0	10.0	0.5	0.4	0.4
Digestible crude fat	5.7	5.7	9.2	1.7	8.6	8.6	-0.5	-0.6	-0.6
Fatty acids	4.9	4.9	9.6	2.0	7.9	8.0	0.3	0.3	0.3
Iodine number			120		123	125			
Carbohydrates	51.4	51.4	53.4	61.9	58.0	57.4	85.4	75.2	79.9
Crude fiber	6.6	6.6	7.9	12.8	15.1	16.2	18.1	0.0	0.0
Sugar	3.0	3.0	0.5	15.0	2.0	2.0	1.0	63.0	61.8
Starch	3.0	3.0	1.0	5.0	10.0	10.0	28.7	0.0	0.0
Digestible cell wall carbohydr.	27.7	27.7	44.4	21.8	22.6	20.1	46.2	8.3	10.5
NDF			42					0	0
Digestibility coefficients									
Crude protein	85	85	83	83	82	83	58	70	38
EPD (% of N)	70	70	33	70	45	45	70	100	100
Original protein in the intestine	93	93	87	84	87	88	93	100	100
Undegraded protein in the intes.	77	77	81	47	76	78	77	0	0
Crude fat	82	82	87	60	86	86			
Carbohydrates	65	65	86	68	60	56	89	95	90
Organic matter	74.0	74.0	85.0	72.0	69.0	67.0	85.0	90.0	86.0
Minerals, per kg dry matter									
Calcium, g	2.0	2.0	3.4	4.0	3.7	3.5	0.8	2.0	8.0
Phosphorus, g	8.1	8.1	8.4	9.2	7.2	5.4	1.9	0.2	0.8
Magnesium, g	3.3	3.3	3.6	2.0	2.7	2.0	1.3	0.1	4.4
Potassium, g	18.3	18.3	11.3	22.0	1.0	1.0	29.0	37.0	50.0
Sodium, g	1.8	1.8	4.8	0.8	0.3	0.3	0.6	11.6	2.4
Chloride, g			2.6		0.3		1.2	4.0	4.0
Sulfur, g			5.8		0.3		1.9	4.0	4.0
CAB, meq (cat-anion-balance)			62		11		615	1088	1020
Iron, mg	130	130	287	164	274	274		127	632
Manganese, mg	41	41	39	78	39	34	10	22	65
Zink, mg	79	79	65	139	111	83	66	36	22
Copper, mg	13	13	9	52	13	17	4	6	21
Cobalt, mg	0.07	0.07	0.18		0.12	0.12			
Selenium, mg			0.42				0.04	0.10	0.44
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg			45		29			5	5
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	10	18	17	16	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.30	0.22	0.34	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	15.2	15.2	16.9	13.6	14.5	14.2	14.1	13.8	12.3
SFU per kg dry matter	1.11	1.11	1.28	0.93	1.01	0.98	0.97	1.00	0.85
Content per SFU									
Kg dry matter	0.90	0.90	0.78	1.07	0.99	1.02	1.04	1.00	1.18
Kg feed	7.85	1.00	0.88	1.13	4.09	1.12	6.47	1.34	1.61
Digestible crude protein, g	275	275	189	256	226	241	51	90	25
AAT, g	96	96	143	85	135	142	97	76	90
PBV, g	173	173	11	137	63	73	-79	2	-87
Fatty acids, g	44	44	75	21	78	81	3	3	3
Sugar, g	27	27	4	161	20	20	10	632	726
Starch, g	27	27	8	54	99	102	297	0	0
Digestible cell wall carbohydr., g	250	250	347	234	224	205	478	83	123
FFk, fill cows	0.20	0.20	0.17	0.24	0.30	0.22	0.35	0.22	0.26
FFu, fill young stock	0.95	0.95	0.82	1.13	1.04	1.07	1.09	1.05	1.23
Chewing time, minutes	4	4	3	11	18	17	17	4	5

By-products	Beet pulp	Beet pulp, dried	Beet pulp, pressed, ensiled, 5% molasses	Beet pulp, ensiled	Beet pulp, dried, molassed	Condensed molasses, solubles	Prolasse	Sugar beet, sliced, dried	
Feed number	282	283	284	285	286	287	288	289	
Dry matter, pct	11.5	88.0	26.0	14.0	88.0	65.0	73.0	93.0	
% in dry matter:									
Ash	6.2	6.8	6.4	8.0	8.5	30.8	18.5	6.5	
Crude protein	10.5	9.9	11.5	11.0	11.2	35.4	16.8	5.8	
Digestible crude protein	6.8	6.2	7.7	7.2	7.4	29.9	12.6	2.4	
AAT (amino acids absorbed)	10.0	9.9	9.9	9.9	9.7	2.1	6.1	9.1	
PBV (protein balance rumen)	-7.1	-8.3	-5.9	-6.5	-6.0	31.8	6.5	-9.9	
Crude fat	1.6	1.6	1.4	1.6	1.5	0.4	0.0	0.3	
Digestible crude fat	0.5	0.5	0.3	0.5	0.4	-0.6	-1.0	-0.7	
Fatty acids	1.0	1.0	0.9	1.0	1.0	0.3	0.0	0.2	
Iodine number									
Carbohydrates	81.7	81.7	80.7	79.4	78.8	33.4	64.7	87.4	
Crude fiber	21.0	19.9	18.0	21.1	14.7	0.0	0.0	6.5	
Sugar	5.0	6.3	2.0	1.0	23.3	0.0	37.1	69.7	
Starch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Digestible cell wall carbohydr.	70.2	69.0	73.3	72.2	50.6	19.9	20.6	11.8	
NDF	45	45	38	45	35	0			
Digestibility coefficients									
Crude protein	64	63	67	66	66	85	75	41	
EPD (% of N)	60	52	66	60	64	100	100	80	
Original protein in the intestine	90	82	92	90	90	100	100	93	
Undegraded protein in the intes.	75	63	76	75	72	0	0	65	
Crude fat	34	33	25	34	28				
Carbohydrates	92	92	93	92	94	59	89	93	
Organic matter	88.0	88.0	89.0	88.0	89.3	71.0	85.0	89.0	
Minerals, per kg dry matter									
Calcium, g	9.0	10.2	8.0	9.0	6.2	1.5	5.9	3.1	
Phosphorus, g	0.9	1.1	0.8	0.9	0.8	7.7	3.0	1.8	
Magnesium, g	2.3	2.3	2.0	2.3	1.7	0.2	1.9	1.5	
Potassium, g	5.6	6.0	10.0	5.6	15.3	107.7	49.0	11.0	
Sodium, g	0.5	0.7	2.1	0.5	4.5	0.0	17.0	1.0	
Chloride, g	0.3	0.3	0.8	0.3	1.0	33.8			
Sulfur, g	1.3	1.1	1.7	1.3	1.0	13.8			
CAB, meq (cat-anion-balance)	75	106	218	75	496	935			
Iron, mg	490	636	440	490	381	435		1100	
Manganese, mg	60	68	55	60	44	98		102	
Zink, mg	79	25	73	79	25	25		28	
Copper, mg	7	8	7	7	7	12		6	
Cobalt, mg		0.28			0.09				
Selenium, mg	0.11	0.11	0.10	0.11	0.11			0.06	
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	16	8	16	16	8	4	4	33	
FFk, fill cows	0.30	0.22	0.26	0.31	0.22	0.22	0.22	0.22	
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	
Energy									
Dig. energy, MJ per kg dry matter	14.8	14.7	15.0	14.6	14.5	10.5	12.4	13.9	
SFU per kg dry matter	1.03	1.02	1.05	1.00	1.02	0.67	0.86	0.98	
Content per SFU									
Kg dry matter	0.97	0.98	0.95	1.00	0.98	1.50	1.17	1.02	
Kg feed	8.48	1.12	3.65	7.13	1.12	2.31	1.60	1.09	
Digestible crude protein, g	66	61	73	72	73	448	147	24	
AAT, g	98	98	94	99	96	32	71	93	
PBV, g	-70	-82	-56	-65	-59	477	76	-101	
Fatty acids, g	10	10	9	10	9	4	0	2	
Sugar, g	49	62	19	10	229	0	432	708	
Starch, g	0	0	0	0	0	0	0	0	
Digestible cell wall carbohydr., g	685	679	696	721	497	298	239	120	
FFk, fill cows	0.29	0.22	0.25	0.31	0.22	0.33	0.26	0.22	
FFu, fill young stock	1.02	1.03	1.00	1.05	1.03	1.57	1.22	1.07	
Chewing time, minutes	16	8	15	16	8	6	5	34	

By-products	Citrus pulp, dried	Cellulose pulp	Pectin residues		Brewer's yeast	Wood pulp			
Feed number	291	292	294		297	298			
Dry matter, pct	90.0	27.0	11.6		10.0	38.0			
% in dry matter:									
Ash	6.7	19.4	1.9		6.7	4.0			
Crude protein	6.7	1.9	7.6		50.8	1.2			
Digestible crude protein	3.2	-1.2	4.1		44.2	-1.9			
AAT (amino acids absorbed)	9.5	8.0	7.2		13.6	7.1			
PBV (protein balance rumen)	-9.6	-11.7	-5.9		29.4	-10.7			
Crude fat	2.8	0.4	3.0		3.7	0.4			
Digestible crude fat	1.7	-0.6	1.9		2.6	-0.6			
Fatty acids	1.9	0.2	2.0		3.1	0.2			
Iodine number		0							
Carbohydrates	83.9	78.3	87.5		38.8	94.4			
Crude fiber	13.3	53.5	45.0		0.4	67.5			
Sugar	25.0	0.0	0.0		0.0	0.0			
Starch	0.0	0.0	0.0		0.0	0.0			
Digestible cell wall carbohydr.	53.2	72.8	59.3		34.4	64.9			
NDF	22								
Digestibility coefficients									
Crude protein	48		54		87				
EPD (% of N)	66	70	62		70	70			
Original protein in the intestine	93	93	80		93	93			
Undegraded protein in the intes.	79	77	47		77	77			
Crude fat	60		63		69				
Carbohydrates	93	93	68		89	69			
Organic matter	89.0	88.0	66.5		87.0	65.0			
Minerals, per kg dry matter									
Calcium, g	16.7	5.0	2.8		2.5	0.3			
Phosphorus, g	1.1	1.0	0.7		12.0				
Magnesium, g	1.3		0.1						
Potassium, g	10.0		0.5						
Sodium, g	0.6		1.2						
Chloride, g	0.3								
Sulfur, g	0.8								
CAB, meg (cat-anion-balance)	222								
Iron, mg	139								
Manganese, mg	11								
Zink, mg	11								
Copper, mg	8								
Cobalt, mg									
Selenium, mg									
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	17	15	13		4	20			
FFk, fill cows	0.22	0.42	0.50		0.22	0.58			
FFu, fill young stock	1.05	1.05	1.05		1.05	1.05			
Energy									
Dig. energy, MJ per kg dry matter	14.7	12.1	11.9		17.5	10.6			
SFU per kg dry matter	1.04	0.64	0.65		1.36	0.44			
Content per SFU									
Kg dry matter	0.96	1.56	1.54		0.73	2.27			
Kg feed	1.07	5.79	13.26		7.33	5.96			
Digestible crude protein, g	31	-19	63		324	-43			
AAT, g	91	125	111		100	160			
PBV, g	-92	-182	-90		216	-244			
Fatty acids, g	19	3	30		23	5			
Sugar, g	241	0	0		0	0			
Starch, g	0	0	0		0	0			
Digestible cell wall carbohydr., g	513	1137	912		252	1471			
FFk, fill cows	0.21	0.66	0.77		0.16	1.31			
FFu, fill young stock	1.01	1.64	1.61		0.77	2.38			
Chewing time, minutes	16	23	20		3	45			

Milk products	Skim milk powder	Whole milk, large breed	Whole milk, Jersey	Fermented colostrum	Milk replacer	Whey	Whey powder	Whey permeate	Skim milk
Feed number	307	308	309	310	311	312	314	315	317
Dry matter, pct	96.0	13.5	15.5	15.0	95.0	5.8	95.0	7.0	8.8
% in dry matter:									
Ash	8.4	6.0	6.0	8.0	7.0	8.4	9.2	8.5	8.4
Crude protein	36.9	26.5	25.8	39.0	28.0	13.0	13.4	5.9	40.0
Digestible crude protein	31.3	21.6	21.0	33.3	23.0	9.1	9.5	2.5	34.2
AAT (amino acids absorbed)	6.0	4.1	3.2	2.6	5.2	8.3	8.1	9.1	5.6
PBV (protein balance rumen)	27.3	20.0	20.9	35.3	19.6	-0.8	0.2	-9.2	31.0
Crude fat	0.5	31.0	41.0	32.0	18.0	1.1	1.3	0.2	1.0
Digestible crude fat	-0.5	28.8	38.4	29.7	16.3	0.1	0.2	-0.8	0.0
Fatty acids	0.4	26.4	34.9	27.2	15.3	1.0	1.2	0.2	0.9
Iodine number									
Carbohydrates	54.2	36.5	27.2	21.0	47.0	77.5	76.1	85.4	50.6
Crude fiber	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sugar	54.0	36.5	27.2	21.0	47.0	77.5	74.0	84.4	50.6
Starch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Digestible cell wall carbohydr. NDF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Digestibility coefficients									
Crude protein	85	82	81	85	82	70	71	42	86
EPD (% of N)	100	100	100	100	100	100	100	100	100
Original protein in the intestine									
Undegraded protein in the intes.	100	100	100	100	100	100	100	100	100
Crude fat		93	94	93	90	5	19		
Carbohydrates	100	100	100	100	100	100	99	100	100
Organic matter	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
Minerals, per kg dry matter									
Calcium, g	13.9	8.6	8.6	17.0	11.0	7.2	7.2	4.6	13.9
Phosphorus, g	10.5	7.2	7.2	16.0	8.0	7.9	7.9	7.4	10.5
Magnesium, g	1.2	0.9	0.9	3.0	1.7	1.4	1.4	1.4	1.2
Potassium, g	16.0	11.0	11.0	11.0	11.0	24.0	24.0	13.0	16.0
Sodium, g	6.7	3.0	3.0	3.0	5.0	10.6	10.6	8.3	6.7
Chloride, g									
Sulfur, g									
CAB, meq (cat-anion-balance)									
Iron, mg	23	10	10	15	80	92	92		23
Manganese, mg	4	1	1	1	45	3	3		4
Zink, mg	48	25	25	25	110	17	17		48
Copper, mg	5	1	1	4	7	22	22		5
Cobalt, mg	0.01	0.01	0.01	0.03	0.01				0.01
Selenium, mg	0.13	0.30	0.30		0.30	0.05	0.05		0.13
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4	4	4	4	4	4	4
FFk, fill cows	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	16.7	21.5	23.1	22.3	19.3	15.1	15.1	14.4	17.0
SFU per kg dry matter	1.28	1.76	1.92	1.83	1.54	1.12	1.12	1.06	1.32
Content per SFU									
Kg dry matter	0.78	0.57	0.52	0.55	0.65	0.89	0.89	0.95	0.76
Kg feed	0.81	4.21	3.36	3.64	0.69	15.33	0.94	13.50	8.64
Digestible crude protein, g	244	123	109	182	150	81	84	24	260
AAT, g	47	24	17	14	34	74	73	86	43
PBV, g	212	114	109	192	128	-7	2	-87	235
Fatty acids, g	3	150	181	148	100	9	10	2	7
Sugar, g	420	208	142	115	306	689	661	798	385
Starch, g	0	0	0	0	0	0	0	0	0
Digestible cell wall carbohydr., g	0	0	0	0	0	0	0	0	0
FFk, fill cows	0.17	0.13	0.11	0.12	0.14	0.20	0.20	0.21	0.17
FFu, fill young stock	0.82	0.60	0.55	0.57	0.68	0.93	0.94	0.99	0.80
Chewing time, minutes	3	2	2	2	3	4	4	4	3

Blod meal, fish meal and fat	Blood meal		Fish meal, standard	Fish meal, low EPD	Fish silage		Saturated fat	Vegetable fat	Calcium soaps
Feed number	324		908	909	911		345	347	348
Dry matter, pct	92.0		94.0	91.8	23.7		99.0	99.0	99.0
% in dry matter:									
Ash	5.5		14.3	12.8	15.6		0.0	0.0	15.0
Crude protein	94.0		74.4	74.3	68.8		0.0	0.0	0.0
Digestible crude protein	84.4		66.2	66.1	61.0		-3.0	-3.0	-3.0
AAT (amino acids absorbed)	63.2		27.2	42.4	5.2		0.0	0.0	0.0
PBV (protein balance rumen)	13.9		37.2	22.2	60.0		0.0	0.0	0.0
Crude fat	0.5		11.3	12.9	4.7		100.0	100.0	85.0
Digestible crude fat	-0.5		9.8	11.4	3.5		95.0	95.0	80.6
Fatty acids	0.4		9.0	10.3	3.7		100.0	85.0	72.3
Iodine number			140	140			0	80	
Carbohydrates	0.0		0.0	0.0	11.0		0.0	0.0	0.0
Crude fiber	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Sugar	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Starch	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Digestible cell wall carbohydr.	1.2		0.0	0.7	10.7		0.0	0.0	0.0
NDF			0	0					
Digestibility coefficients									
Crude protein	90		89	89	89				
EPD (% of N)	15		50	30	90		0	0	0
Original protein in the intestine	94		93	97	97		0	0	0
Undegraded protein in the intes.	93		86	96	70		0	0	0
Crude fat			87	88	74		95	95	95
Carbohydrates			0	100	97				0
Organic matter	90.0		88.8	89.7	89.0		95.0	95.0	94.8
Minerals, per kg dry matter									
Calcium, g	0.4		23.0	23.0	13.9		0.0	0.0	84.0
Phosphorus, g	2.3		19.4	19.4	18.1		0.0	0.0	0.0
Magnesium, g	0.0		2.1	2.0	1.7				
Potassium, g	8.0		12.0	12.0					
Sodium, g	9.0		11.4	11.4	28.7				
Chloride, g			17.8	17.8					
Sulfur, g			0.9	0.9					
CAB, meq (cat-anion-balance)			245	245					
Iron, mg	2500		200	200					
Manganese, mg	1		9	9	5				
Zink, mg	14		102	102	97				
Copper, mg	7		4	4					
Cobalt, mg									
Selenium, mg	0.80		2.00	2.00	3.12				
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg			6	6			40	40	40
Structure/fill, per kg dry mat.									
Chewing time, minutes	4		4	4	0		4	4	4
FFk, fill cows	0.22		0.22	0.22	0.22		0.22	0.22	0.22
FFu, fill young stock	1.05		1.05	1.05	1.05		1.05	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	20.5		19.4	20.0	17.8		32.2	32.2	27.3
SFU per kg dry matter	1.66		1.55	1.61	1.39		2.82	2.82	2.33
Content per SFU									
Kg dry matter	0.60		0.64	0.62	0.72		0.36	0.36	0.43
Kg feed	0.66		0.69	0.68	3.03		0.36	0.36	0.43
Digestible crude protein, g	510		427	410	438		-11	-11	-13
AAT, g	382		175	263	38		0	0	0
PBV, g	84		240	137	431		0	0	0
Fatty acids, g	2		58	64	27		355	302	310
Sugar, g	0		0	0	0		0	0	0
Starch, g	0		0	0	0		0	0	0
Digestible cell wall carbohydr., g	7		0	5	77		0	0	0
FFk, fill cows	0.13		0.14	0.14	0.16		0.08	0.08	0.09
FFu, fill young stock	0.63		0.68	0.65	0.75		0.37	0.37	0.45
Chewing time, minutes	2		3	2	0		1	1	2

Beets and beet tops	Fodder beets, 16,5% dry matter	Fodder beets, 18% dry matter	Fodder beets, 20% dry matter	Sugar beets	Swedes	Turnips	Root + top (fodder beets)	Beet top, fresh, 20% ash	Beet top, silage, 20% ash
Feed number	388	351	386	361	371	381	387	353	356
Dry matter, pct	16.5	18.0	20.0	22.0	12.0	9.0	16.8	12.0	16.0
% in dry matter:									
Ash	8.0	8.0	8.0	8.0	8.0	9.0	11.7	19.1	20.0
Crude protein	7.4	7.4	7.4	5.9	10.1	11.2	11.9	16.4	18.0
Digestible crude protein	3.9	3.9	3.9	2.5	6.4	7.4	8.1	12.3	13.7
AAT (amino acids absorbed)	9.0	9.0	9.0	9.0	8.8	8.7	8.8	7.4	7.0
PBV (protein balance rumen)	-8.1	-8.1	-8.1	-9.6	-5.4	-4.1	-3.5	3.1	5.2
Crude fat	0.4	0.4	0.4	0.3	0.0	0.0	0.8	4.6	4.6
Digestible crude fat	-0.6	-0.6	-0.6	-0.7	-1.0	-1.0	-0.2	3.4	3.4
Fatty acids	0.3	0.3	0.3	0.2	0.0	0.0	0.2	1.7	1.7
Iodine number								150	150
Carbohydrates	84.2	84.2	84.2	85.8	81.9	79.8	75.6	59.9	57.4
Crude fiber	5.4	5.4	5.4	5.2	10.1	12.4	7.5	12.0	15.0
Sugar	68.0	68.0	68.0	69.4	40.0	40.0	42.0	12.0	0.0
Starch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Digestible cell wall carbohydr.	11.5	11.5	11.5	11.6	36.5	34.6	27.0	38.7	45.2
NDF	12	12	12	13				28	36
Digestibility coefficients									
Crude protein	52	52	52	42	63	66	68	75	76
EPD (% of N)	82	82	82	82	82	82	74	74	74
Original protein in the intestine	93	93	93	93	93	93	93	93	93
Undegraded protein in the intes.	61	61	61	61	61	61	73	73	73
Crude fat								74	74
Carbohydrates	94	94	94	94	93	93	91	85	79
Organic matter	90.0	90.0	90.0	90.0	89.0	89.0	87.0	82.0	78.0
Minerals, per kg dry matter									
Calcium, g	1.8	1.8	1.8	1.8	4.2	4.5	6.5	13.0	13.0
Phosphorus, g	1.7	1.7	1.7	1.7	2.8	3.6	1.6	2.7	2.7
Magnesium, g	1.4	1.4	1.4	1.4	1.0		2.5	4.1	4.1
Potassium, g	21.0	21.0	21.0	21.0	18.0		22.5	30.0	30.0
Sodium, g	2.0	2.0	2.0	2.0	1.1	1.0	4.0	9.7	9.7
Chloride, g	2.1	2.1	2.1	2.1				16.0	16.0
Sulfur, g	0.7	0.7	0.7	0.7				2.0	2.0
CAB, meq (cat-anion-balance)	521	521	521	521				613	613
Iron, mg	230	230	230	280	120				
Manganese, mg	30	30	30	30	18			90	90
Zink, mg	72	72	72	72	19			45	45
Copper, mg	4	4	4	4	8			13	13
Cobalt, mg	0.20	0.20	0.20	0.20	0.07			0.20	0.20
Selenium, mg	0.02	0.02	0.02	0.02				0.05	0.05
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	0	0	0						
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg	5	5	5						
Structure/fill, per kg dry mat.									
Chewing time, minutes	16	18	16	18	18	18	23	28	49
FFk, fill cows	0.25	0.25	0.25	0.25	0.25	0.25	0.32	0.38	0.38
FFu, fill young stock	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.09	1.10
Energy									
Dig. energy, MJ per kg dry matter	14.0	14.0	14.0	13.9	14.1	14.1	13.5	12.9	12.3
SFU per kg dry matter	0.99	0.99	0.99	0.98	0.99	0.98	0.94	0.87	0.80
Content per SFU									
Kg dry matter	1.01	1.01	1.01	1.02	1.01	1.02	1.06	1.16	1.25
Kg feed	6.10	5.59	5.03	4.62	8.39	11.37	6.34	9.63	7.84
Digestible crude protein, g	39	39	39	25	64	76	86	142	172
AAT, g	90	90	90	92	89	89	94	86	88
PBV, g	-82	-82	-82	-98	-54	-42	-37	36	66
Fatty acids, g	3	3	3	2	0	0	2	20	21
Sugar, g	684	684	684	706	402	409	447	139	0
Starch, g	0	0	0	0	0	0	0	0	0
Digestible cell wall carbohydr., g	116	116	116	118	367	354	287	447	567
FFk, fill cows	0.25	0.25	0.25	0.25	0.25	0.26	0.34	0.44	0.48
FFu, fill young stock	1.06	1.06	1.06	1.07	1.06	1.07	1.12	1.25	1.38
Chewing time, minutes	16	18	16	18	18	18	24	32	61

Beet top and mixed silage / carrots and potatoes	Swedes, top	Ensiled top + beet pulp, dried	Ensiled top + straw	Ensiled top + straw + beet pulp, dried	Ensiled top + barley whole crop	Ensiled beets + top + beet pulp, dried	Ensiled beets + straw	Carrots	Potatoes
Feed number	373	365	366	367	368	385	390	391	395
Dry matter, pct	13.0	25.5	20.0	23.0	28.0	24.0	26.0	10.0	24.0
% in dry matter:									
Ash	18.1	18.0	13.0	13.0	9.0	12.0	8.0	8.3	5.1
Crude protein	19.0	15.0	13.0	15.0	12.0	12.0	7.5	10.5	9.2
Digestible crude protein	14.7	11.0	9.1	11.0	8.2	8.2	4.0	6.8	5.6
AAT (amino acids absorbed)	7.0	8.6	6.6	8.1	7.0	8.0	6.9	8.9	8.8
PBV (protein balance rumen)	6.3	-0.1	1.2	0.8	-0.4	-2.1	-4.6	-5.1	-6.1
Crude fat	4.3	1.6	2.5	2.5	2.5	1.5	0.7	0.0	0.0
Digestible crude fat	3.1	0.5	1.4	1.4	1.4	0.4	-0.3	-1.0	-1.0
Fatty acids	1.2	0.7	1.0	1.0	1.0	0.8	0.3	0.0	0.0
Iodine number									
Carbohydrates	58.6	65.4	71.5	69.5	76.5	74.5	83.8	81.2	85.7
Crude fiber	12.9	11.5	27.0	23.0	21.0	16.0	20.0	11.3	2.4
Sugar	10.0	1.5	1.5	1.5	1.5	3.0	4.0	60.0	0.0
Starch	0.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	74.0
Digestible cell wall carbohydr. NDF	33.6	54.6	47.2	50.5	33.4	57.0	55.8	15.8	1.2
Digestibility coefficients									
Crude protein	77	73	70	73	68	68	53	64	60
EPD (% of N)	74	66	76	67	81	72	81	80	80
Original protein in the intestine	93	93	93	93	93	93	93	93	93
Undegraded protein in the intes.	73	79	71	79	63	75	63	65	65
Crude fat	73	34	56	56	56	29			
Carbohydrates	74	86	68	75	74	81	71	93	88
Organic matter	75.0	82.4	68.0	74.0	73.0	78.0	69.0	89.0	84.0
Minerals, per kg dry matter									
Calcium, g	19.3	10.0	9.0	9.0	6.5	4.0	2.6	4.4	0.5
Phosphorus, g	3.9	2.1	1.9	1.5	2.8	1.6	1.3	3.0	2.1
Magnesium, g	1.3	3.1	2.7	2.8	2.0	1.9	1.1	1.9	0.9
Potassium, g	26.0	15.0	24.0	19.0	22.0	17.0	18.0	28.0	20.0
Sodium, g	1.6	4.0	7.0	6.0	4.0	3.0	2.4	2.8	0.2
Chloride, g									
Sulfur, g									
CAB, meq (cat-anion-balance)									
Iron, mg	200						330	60	323
Manganese, mg	90	60	90	75	35	45	50	23	9
Zink, mg	35	30	45	35	30	45	35	33	86
Copper, mg	11	10	10	10	5	13	5	6	6
Cobalt, mg	0.15		0.20		0.10		0.20	0.16	
Selenium, mg	0.13	0.09	0.07	0.08	0.05	0.06	0.03	0.03	0.03
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.								270	
Beta-caroten, mg								670	
Vit-D, 1000 i.e.									
Vit-E, mg								60	
Structure/fill, per kg dry mat.									
Chewing time, minutes	18	26	60	65	50	48	60	18	18
FFk, fill cows	0.38	0.30	0.53	0.48	0.44	0.35	0.49	0.25	0.25
FFu, fill young stock	1.11	1.09	1.17	1.12	1.11	1.10	1.15	1.05	1.05
Energy									
Dig. energy, MJ per kg dry matter	12.2	12.5	11.1	12.1	12.3	12.5	11.2	14.0	14.0
SFU per kg dry matter	0.79	0.83	0.64	0.75	0.77	0.81	0.67	0.97	1.01
Content per SFU									
Kg dry matter	1.27	1.20	1.57	1.33	1.29	1.23	1.49	1.03	0.99
Kg feed	9.74	4.72	7.87	5.79	4.61	5.12	5.74	10.28	4.13
Digestible crude protein, g	186	132	143	146	105	100	59	70	55
AAT, g	88	103	104	107	90	99	104	92	87
PBV, g	79	-1	19	10	-6	-26	-69	-53	-60
Fatty acids, g	15	9	16	13	13	10	4	0	0
Sugar, g	127	18	24	20	19	37	60	617	0
Starch, g	0	0	0	0	284	0	0	0	734
Digestible cell wall carbohydr., g	426	657	743	673	431	701	834	163	12
FFk, fill cows	0.48	0.36	0.83	0.64	0.57	0.43	0.73	0.26	0.25
FFu, fill young stock	1.40	1.32	1.84	1.49	1.44	1.35	1.72	1.08	1.04
Chewing time, minutes	23	31	94	87	65	59	90	19	18

Lucerne/ clover-grass	Lucerne, early bloom	Lucerne, mid bloom	Lucerne, end of bloom	Clover- grass, 6-8 cm, 20% clover	Clover- grass, 12-15 cm, 20% clover	Clover- grass, 20-25 cm, 20% clover	Clover- grass, 6-8 cm, 40% clover	Clover- grass, 12-15 cm, 40% clover	Clover- grass, 20-25 cm, 40% clover
Feed number	401	402	403	421	422	423	424	425	426
Dry matter, pct	21.0	21.0	20.0	18.0	18.0	18.0	17.5	17.5	17.5
% in dry matter:									
Ash	12.1	9.8	9.9	9.4	9.4	9.4	9.6	9.6	9.6
Crude protein	24.0	19.0	15.4	23.0	22.0	20.0	24.0	23.0	21.0
Digestible crude protein	19.3	14.7	11.3	18.4	17.5	15.6	19.3	18.4	16.5
AAT (amino acids absorbed)	7.1	6.3	5.6	8.8	8.8	8.7	8.8	8.8	8.7
PBV (protein balance rumen)	10.8	7.4	5.2	6.6	5.7	3.9	7.5	6.6	4.8
Crude fat	4.0	3.8	2.9	4.3	4.1	3.9	4.3	4.1	3.9
Digestible crude fat	2.8	2.6	1.8	3.1	2.9	2.7	3.1	2.9	2.7
Fatty acids	2.0	1.9	1.5	2.6	2.5	2.3	2.6	2.5	2.3
Iodine number				210	210	210	210	210	210
Carbohydrates	59.9	67.4	71.8	63.3	64.5	66.7	62.1	63.3	65.5
Crude fiber	17.0	26.1	30.9	19.5	20.5	22.0	18.5	19.5	21.0
Sugar	12.0	10.0	8.0	12.0	13.0	13.0	11.0	12.0	12.0
Starch	0.0	0.0	0.0	1.0	1.0	1.0	1.5	1.5	1.5
Digestible cell wall carbohydr. NDF	29.1	28.6	27.5	37.1	37.2	37.4	36.5	36.6	36.8
				38	38	42	36	36	40
Digestibility coefficients									
Crude protein	81	77	74	80	79	78	81	80	79
EPD (% of N)	78	78	78	71	71	69	71	71	69
Original protein in the intestine	93	93	93	91	91	90	91	91	90
Undegraded protein in the intes.	68	68	68	70	70	69	70	70	69
Crude fat	71	70	62	73	72	70	73	72	70
Carbohydrates	69	57	50	79	79	77	79	79	77
Organic matter	72.0	62.0	54.0	79.0	79.0	77.0	79.0	79.0	77.0
Minerals, per kg dry matter									
Calcium, g	13.0	15.0	17.0	6.5	6.5	6.5	8.5	8.5	8.5
Phosphorus, g	2.8	2.8	2.8	4.0	4.0	4.0	4.0	4.0	4.0
Magnesium, g	2.0	2.1	2.2	1.8	1.8	1.8	2.0	2.0	2.0
Potassium, g	28.0	28.0	26.0	29.0	29.0	29.0	29.0	29.0	29.0
Sodium, g	1.2	1.2	1.0	1.5	1.5	1.5	1.5	1.5	1.5
Chloride, g	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Sulfur, g	3.4	3.4	3.4	2.1	2.1	2.1	2.1	2.1	2.1
CAB, meq (cat-anion-balance)	330	330	271	450	450	450	450	450	450
Iron, mg	190	190	190	230	230	230	230	230	230
Manganese, mg	30	30	30	70	70	70	70	70	70
Zink, mg	30	30	30	60	60	60	60	60	60
Copper, mg	7	7	7	7	7	7	7	7	7
Cobalt, mg	0.20	0.20	0.20	0.50	0.50	0.50	0.50	0.50	0.50
Selenium, mg	0.03	0.03	0.03	0.06	0.06	0.06	0.06	0.06	0.06
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	80	80	80	100	100	100	100	100	100
Beta-caroten, mg	200	200	200	250	250	250	250	250	250
Vit-D, 1000 i.e.									
Vit-E, mg	200	200	200	150	150	150	150	150	150
Structure/fill, per kg dry mat.									
Chewing time, minutes	51	78	93	59	62	66	56	59	63
FFk, fill cows	0.40	0.47	0.54	0.41	0.41	0.44	0.39	0.40	0.42
FFu, fill young stock	0.91	0.97	1.06	1.02	1.03	1.04	0.98	0.99	1.00
Energy									
Dig. energy, MJ per kg dry matter	12.8	11.1	9.5	14.2	14.1	13.6	14.2	14.1	13.7
SFU per kg dry matter	0.83	0.64	0.46	0.97	0.95	0.90	0.97	0.96	0.91
Content per SFU									
Kg dry matter	1.20	1.56	2.16	1.04	1.05	1.11	1.03	1.04	1.10
Kg feed	5.71	7.42	10.79	5.75	5.83	6.17	5.87	5.95	6.29
Digestible crude protein, g	231	229	244	190	183	173	199	192	182
AAT, g	85	98	120	91	92	96	91	92	96
PBV, g	129	115	111	68	59	43	77	68	53
Fatty acids, g	24	30	31	27	26	26	27	26	26
Sugar, g	144	156	173	124	136	144	113	125	132
Starch, g	0	0	0	10	10	11	15	16	17
Digestible cell wall carbohydr., g	349	446	594	384	390	415	375	381	406
FFk, fill cows	0.48	0.74	1.16	0.42	0.43	0.48	0.40	0.41	0.46
FFu, fill young stock	1.09	1.51	2.28	1.06	1.08	1.15	1.01	1.03	1.10
Chewing time, minutes	61	122	201	61	65	73	57	61	69

Clover-grass	Clover-grass, 6-8 cm, 60% clover	Clover-grass, 12-15 cm, 60% clover	Clover-grass, 20-25 cm, 60% clover	Clover-grass, 6-8 cm, early, irrigation	Clover-grass, 6-8 cm, mid, irrigation	Clover-grass, 6-8 cm, late, irrigation	Clover-grass, 6-8 cm, early, -irrigation	Clover-grass, 6-8 cm, mid, -irrigation	Clover-grass, 6-8 cm, late, -irrigation
Feed number	427	428	429	431	432	433	434	435	436
Dry matter, pct	17.0	17.0	17.0	17.0	19.0	18.0	17.0	20.0	19.0
% in dry matter:									
Ash	9.8	9.8	9.8	9.3	9.6	9.9	9.3	9.6	9.9
Crude protein	25.0	24.0	22.0	23.5	24.0	25.5	23.5	22.0	24.5
Digestible crude protein	20.3	19.3	17.5	18.9	19.3	20.7	18.9	17.5	19.8
AAT (amino acids absorbed)	8.8	8.8	8.7	9.0	8.8	8.7	9.0	8.7	8.7
PBV (protein balance rumen)	8.4	7.5	5.7	7.0	7.5	8.8	7.0	5.7	8.0
Crude fat	4.3	4.1	3.9	4.3	4.3	4.3	4.3	4.3	4.3
Digestible crude fat	3.1	2.9	2.7	3.1	3.1	3.1	3.1	3.1	3.1
Fatty acids	2.6	2.5	2.3	2.6	2.6	2.6	2.6	2.6	2.6
Iodine number	210	210	210	210	210	210	210	210	210
Carbohydrates	60.9	62.1	64.3	62.9	62.1	60.3	62.9	64.1	61.3
Crude fiber	17.5	18.5	20.0	16.5	19.5	19.5	17.0	20.5	20.0
Sugar	10.0	11.0	11.0	15.5	9.5	7.0	15.5	9.5	7.0
Starch	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Digestible cell wall carbohydr.	35.9	36.0	36.3	36.8	37.6	36.6	36.8	38.5	37.6
NDF	34	34	39	32	38	38	33	39	39
Digestibility coefficients									
Crude protein	81	81	79	80	81	81	80	79	81
EPD (% of N)	71	71	69	74	70	68	74	69	68
Original protein in the intestine	91	91	90	92	91	90	92	90	90
Undegraded protein in the intes.	70	70	69	72	70	69	72	69	69
Crude fat	73	72	70	73	73	73	73	73	73
Carbohydrates	79	79	77	85	77	74	85	76	74
Organic matter	79.0	79.0	77.0	83.0	78.0	76.0	83.0	77.0	76.0
Minerals, per kg dry matter									
Calcium, g	10.5	10.5	10.5	6.5	7.0	7.5	6.5	7.0	7.5
Phosphorus, g	4.0	4.0	4.0	3.8	4.3	4.3	3.8	4.3	4.3
Magnesium, g	2.2	2.2	2.2	1.7	2.0	2.3	1.7	2.0	2.3
Potassium, g	29.0	29.0	29.0	27.0	30.0	30.0	27.0	30.0	30.0
Sodium, g	1.5	1.5	1.5	1.2	1.4	1.7	1.2	1.4	1.7
Chloride, g	8.0	8.0	8.0	5.0	7.0	11.0	5.0	7.0	11.0
Sulfur, g	2.1	2.1	2.1	1.4	2.1	2.7	1.4	2.1	2.7
CAB, meq (cat-anion-balance)	450	450	450	514	500	363	514	500	363
Iron, mg	230	230	230	230	230	230	230	230	230
Manganese, mg	70	70	70	60	90	70	60	90	70
Zink, mg	60	60	60	40	60	80	40	60	80
Copper, mg	7	7	7	5	7	9	5	7	9
Cobalt, mg	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Selenium, mg	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	100	100	100	100	100	100	100	100	100
Beta-caroten, mg	250	250	250	250	250	250	250	250	250
Vit-D, 1000 i.e.									
Vit-E, mg	150	150	150	150	150	150	150	150	150
Structure/fill, per kg dry mat.									
Chewing time, minutes	53	56	60	50	59	59	51	62	60
FFk, fill cows	0.37	0.38	0.40	0.37	0.41	0.41	0.37	0.42	0.42
FFu, fill young stock	0.95	0.95	0.96	1.01	1.01	1.00	1.01	1.01	1.00
Energy									
Dig. energy, MJ per kg dry matter	14.3	14.2	13.7	14.9	14.1	13.8	14.9	13.8	13.7
SFU per kg dry matter	0.98	0.97	0.92	1.04	0.95	0.93	1.04	0.92	0.92
Content per SFU									
Kg dry matter	1.02	1.03	1.09	0.96	1.05	1.08	0.96	1.08	1.09
Kg feed	6.00	6.08	6.43	5.64	5.51	5.98	5.65	5.42	5.71
Digestible crude protein, g	207	200	191	181	202	223	181	189	215
AAT, g	90	91	95	86	92	94	87	94	94
PBV, g	86	77	62	67	78	95	67	62	86
Fatty acids, g	26	25	26	25	27	28	25	28	28
Sugar, g	102	114	120	149	100	75	149	103	76
Starch, g	20	21	22	10	10	11	10	11	11
Digestible cell wall carbohydr., g	366	372	396	353	394	394	353	417	408
FFk, fill cows	0.38	0.39	0.44	0.36	0.43	0.44	0.36	0.45	0.45
FFu, fill young stock	0.97	0.98	1.05	0.96	1.05	1.08	0.97	1.10	1.09
Chewing time, minutes	54	57	66	47	61	63	49	67	65

Clover-grass	Clover-grass, 12-15 cm, early, irrigation	Clover-grass, 12-15 cm, mid, irrigation	Clover-grass, 12-15 cm, late, irrigation	Clover-grass, 12-15 cm, early, -irrigation	Clover-grass, 12-15 cm, mid, -irrigation	Clover-grass, 12-15 cm, late, -irrigation			
Feed number	437	438	439	440	441	442			
Dry matter, pct	17.0	19.0	18.0	17.0	20.0	19.0			
% in dry matter:									
Ash	9.3	9.6	9.9	9.3	9.6	9.9			
Crude protein	22.5	23.0	24.5	22.5	21.5	24.5			
Digestible crude protein	17.9	18.4	19.8	17.9	17.0	19.8			
AAT (amino acids absorbed)	9.0	8.8	8.7	9.0	8.7	8.7			
PBV (protein balance rumen)	6.0	6.6	7.9	6.0	5.3	7.9			
Crude fat	4.1	4.1	4.1	4.1	4.1	4.1			
Digestible crude fat	2.9	2.9	2.9	2.9	2.9	2.9			
Fatty acids	2.5	2.5	2.5	2.5	2.5	2.5			
Iodine number	210	210	210	210	210	210			
Carbohydrates	64.1	63.3	61.5	64.1	64.8	61.5			
Crude fiber	17.0	20.5	20.5	17.5	21.5	20.5			
Sugar	17.0	11.0	7.5	17.0	11.0	7.5			
Starch	1.0	1.0	1.0	1.0	1.0	1.0			
Digestible cell wall carbohydr.	36.4	37.2	37.3	36.4	37.7	37.3			
NDF	33	39	39	34	41	39			
Digestibility coefficients									
Crude protein	80	80	81	80	79	81			
EPD (% of N)	74	70	68	74	69	68			
Original protein in the intestine	92	91	90	92	90	90			
Undegraded protein in the intes.	72	70	69	72	69	69			
Crude fat	72	72	72	72	72	72			
Carbohydrates	85	78	74	85	77	74			
Organic matter	83.0	78.0	76.0	83.0	77.0	76.0			
Minerals, per kg dry matter									
Calcium, g	6.5	7.0	7.5	6.5	7.0	7.5			
Phosphorus, g	3.8	4.3	4.3	3.8	4.3	4.3			
Magnesium, g	1.7	2.0	2.3	1.7	2.0	2.3			
Potassium, g	27.0	30.0	30.0	27.0	30.0	30.0			
Sodium, g	1.2	1.4	1.7	1.2	1.4	1.7			
Chloride, g	5.0	7.0	11.0	5.0	7.0	11.0			
Sulfur, g	1.4	2.1	2.7	1.4	2.1	2.7			
CAB, meq (cat-anion-balance)	514	500	363	514	500	363			
Iron, mg	230	230	230	230	230	230			
Manganese, mg	60	90	70	60	90	70			
Zink, mg	40	60	80	40	60	80			
Copper, mg	5	7	9	5	7	9			
Cobalt, mg	0.50	0.50	0.50	0.50	0.50	0.50			
Selenium, mg	0.06	0.06	0.06	0.06	0.06	0.06			
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	100	100	100	100	100	100			
Beta-caroten, mg	250	250	250	250	250	250			
Vit-D, 1000 i.e.									
Vit-E, mg	150	150	150	150	150	150			
Structure/fill, per kg dry mat.									
Chewing time, minutes	51	62	62	53	65	62			
FFk, fill cows	0.38	0.41	0.42	0.38	0.42	0.42			
FFu, fill young stock	1.01	1.01	1.00	1.01	1.01	0.99			
Energy									
Dig. energy, MJ per kg dry matter	14.8	14.0	13.7	14.8	13.7	13.7			
SFU per kg dry matter	1.03	0.94	0.92	1.03	0.91	0.92			
Content per SFU									
Kg dry matter	0.97	1.06	1.09	0.97	1.10	1.09			
Kg feed	5.70	5.59	6.06	5.71	5.48	5.75			
Digestible crude protein, g	174	195	216	174	186	216			
AAT, g	87	93	95	88	95	95			
PBV, g	59	70	86	59	58	86			
Fatty acids, g	24	26	27	24	27	27			
Sugar, g	165	117	82	165	121	82			
Starch, g	10	11	11	10	11	11			
Digestible cell wall carbohydr., g	353	395	407	354	413	407			
FFk, fill cows	0.37	0.44	0.46	0.37	0.46	0.46			
FFu, fill young stock	0.98	1.07	1.10	0.98	1.11	1.08			
Chewing time, minutes	49	65	67	51	71	67			

Grass	Italian ryegrass, spring, early	Italian ryegrass, spring, mid	Italian ryegrass, spring, late	Italian ryegrass, after whole crop	Italian ryegrass, after grain	Perma- nent meadow- grass	Grass, 6-8 cm	Grass, 12-15 cm	Grass, 20-25 cm
Feed number	444	445	446	448	449	458	464	465	466
Dry matter, pct	19.0	19.0	19.0	16.0	16.0	18.0	17.0	19.0	18.0
% in dry matter:									
Ash	11.0	11.0	11.0	11.0	11.0	10.0	9.4	9.4	9.4
Crude protein	25.0	21.0	18.0	17.0	18.5	20.0	22.0	21.0	19.0
Digestible crude protein	20.3	16.5	13.7	12.8	14.2	15.6	17.5	16.5	14.7
AAT (amino acids absorbed)	8.1	8.5	8.3	7.9	8.0	8.5	8.8	8.8	8.7
PBV (protein balance rumen)	9.7	5.4	2.9	2.7	4.0	4.0	5.7	4.7	3.0
Crude fat	4.9	4.7	4.5	4.5	4.5	3.9	4.1	3.9	3.7
Digestible crude fat	3.7	3.5	3.3	3.3	3.3	2.7	2.9	2.7	2.6
Fatty acids	3.4	3.3	3.2	3.2	3.2	2.1	2.2	2.1	2.0
Iodine number	195	195	195	200	200	210	203	196	185
Carbohydrates	59.1	63.3	66.5	67.5	66.0	66.1	64.5	65.7	67.9
Crude fiber	18.0	21.0	24.0	25.0	23.0	23.0	20.0	21.0	23.0
Sugar	15.0	14.0	13.0	10.0	10.0	13.0	12.0	13.0	13.0
Starch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Digestible cell wall carbohydr. NDF	35.8	38.5	39.4	39.3	38.3	36.2	39.2	39.3	39.5
						39	41	41	43
Digestibility coefficients									
Crude protein	81	79	76	75	77	78	79	79	77
EPD (% of N)	78	74	72	72	72	68	71	71	69
Original protein in the intestine	92	92	92	92	92	90	91	91	90
Undegraded protein in the intes.	64	69	71	71	71	69	70	70	69
Crude fat	76	75	74	74	74	70	72	70	69
Carbohydrates	86	83	79	73	73	74	79	80	77
Organic matter	84.0	81.5	78.0	73.5	74.0	75.0	79.0	79.0	77.0
Minerals, per kg dry matter									
Calcium, g	6.3	6.3	6.3	6.3	6.3	9.5	5.5	5.5	5.5
Phosphorus, g	4.3	4.3	4.3	4.3	4.3	4.0	3.4	3.4	3.4
Magnesium, g	1.9	1.9	1.9	1.9	1.9	1.7	1.8	1.8	1.8
Potassium, g	35.0	35.0	35.0	35.0	35.0	30.0	29.0	29.0	29.0
Sodium, g	2.3	2.3	2.3	2.3	2.3	2.5	1.5	1.5	1.5
Chloride, g							8.0	8.0	8.0
Sulfur, g	3.2	3.2	3.2	3.2	3.2		2.1	2.1	2.1
CAB, meq (cat-anion-balance)							450	450	450
Iron, mg	230	230	230	230	230		220	220	220
Manganese, mg	50	50	50	50	50		70	70	70
Zink, mg	50	50	50	50	50		40	40	40
Copper, mg	11	11	11	11	11		7	7	7
Cobalt, mg	0.70	0.70	0.70	0.70	0.70		0.40	0.40	0.40
Selenium, mg	0.03	0.03	0.03	0.03	0.03		0.05	0.05	0.05
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	100	100	100	100	100	100	100	100	100
Beta-caroten, mg	250	250	250	250	250	250	250	250	250
Vit-D, 1000 i.e.									
Vit-E, mg	150	150	150	150	150	150	150	150	150
Structure/fill, per kg dry mat.									
Chewing time, minutes	54	63	72	75	69	69	60	63	69
FFk, fill cows	0.39	0.42	0.46	0.50	0.48	0.47	0.43	0.44	0.46
FFu, fill young stock	1.06	1.06	1.08	1.10	1.09	1.09	1.07	1.07	1.08
Energy									
Dig. energy, MJ per kg dry matter	15.0	14.3	13.5	12.8	12.9	13.2	14.1	14.0	13.5
SFU per kg dry matter	1.05	0.97	0.88	0.81	0.83	0.86	0.95	0.94	0.89
Content per SFU									
Kg dry matter	0.95	1.03	1.13	1.24	1.20	1.16	1.05	1.06	1.13
Kg feed	5.02	5.42	5.95	7.75	7.52	6.47	6.16	5.59	6.26
Digestible crude protein, g	193	170	155	159	171	182	183	176	165
AAT, g	77	87	94	98	96	99	92	94	98
PBV, g	93	56	32	34	48	47	59	50	34
Fatty acids, g	33	34	36	39	38	25	23	22	23
Sugar, g	143	144	147	124	120	151	126	138	146
Starch, g	0	0	0	0	0	0	0	0	0
Digestible cell wall carbohydr., g	342	396	445	487	461	421	410	417	445
FFk, fill cows	0.37	0.44	0.52	0.61	0.58	0.55	0.45	0.46	0.52
FFu, fill young stock	1.01	1.10	1.22	1.37	1.32	1.27	1.12	1.13	1.22
Chewing time, minutes	52	65	81	93	83	80	63	67	78

Whole crop, fresh	Fodder galega	White clover, early bloom	Red clover, early bloom	Marrow-stem kale	Field Beans, whole crop	Sweet lupin, whole crop	Oats, peas, vetches, whole crop		
Feed number	471	472	473	475	476	479	480		
Dry matter, pct	22.0	13.0	15.0	14.0	18.0	15.0	24.0		
% in dry matter:									
Ash	11.0	11.0	9.0	11.0	9.0	12.1	8.7		
Crude protein	17.5	25.0	17.0	12.9	16.5	17.7	14.0		
Digestible crude protein	12.8	20.3	12.8	9.0	12.3	13.5	10.0		
AAT (amino acids absorbed)	7.1	7.2	7.3	8.1	6.9	6.9	6.4		
PBV (protein balance rumen)	4.0	10.2	3.7	-1.5	3.0	5.2	1.7		
Crude fat	3.0	5.6	7.3	1.7	2.5	2.4	2.9		
Digestible crude fat	1.9	4.4	6.0	0.6	1.4	1.3	1.8		
Fatty acids	2.0	2.7	3.5	1.1	1.6	1.6	1.9		
Iodine number									
Carbohydrates	69.0	58.4	66.7	74.4	72.0	67.8	74.4		
Crude fiber	29.0	17.0	25.0	20.2	25.0	28.2	28.0		
Sugar	12.0	12.0	12.0	10.0	10.0	12.0	12.0		
Starch	0.0	2.0	2.0	0.0	0.0	0.0	6.0		
Digestible cell wall carbohydr.	30.3	35.2	33.6	52.5	42.7	33.0	31.4		
NDF					33	49			
Digestibility coefficients									
Crude protein	75	81	75	70	75	76	72		
EPD (% of N)	68	76	72	75	75	75	75		
Original protein in the intestine	91	92	94	93	87	93	88		
Undegraded protein in the intes.	72	67	79	72	48	72	52		
Crude fat	63	78	82	37	56	54	62		
Carbohydrates	61	84	71	84	73	66	66		
Organic matter	64.0	83.0	73.0	81.0	73.0	68.0	67.0		
Minerals, per kg dry matter									
Calcium, g	13.0	18.0	15.0	19.4	12.8	10.2	6.0		
Phosphorus, g	3.0	4.0	3.0	4.3	4.7	2.6	3.0		
Magnesium, g	2.4	2.2	2.8	2.8	2.5	2.3	2.5		
Potassium, g	22.0	29.0	25.0	30.0	17.0	32.0	25.0		
Sodium, g	0.6	1.4	0.4	2.5	2.7	0.5	0.5		
Chloride, g	7.3								
Sulfur, g	2.7								
CAB, meq (cat-anion-balance)	214								
Iron, mg	290	150	130			121			
Manganese, mg	42	60	60	54	41	165			
Zink, mg	32	30	29	32	32	74			
Copper, mg	7	9	7	7	7	7			
Cobalt, mg	0.40	0.06	0.17	0.11	0.17	0.03			
Selenium, mg	0.04								
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	87	51	75	45	49	63	63		
FFk, fill cows	0.58	0.32	0.39	0.47	0.42	0.46	0.49		
FFu, fill young stock	1.18	0.88	0.90	1.08	0.92	0.96	1.12		
Energy									
Dig. energy, MJ per kg dry matter	11.1	14.9	13.4	13.2	12.6	11.5	11.6		
SFU per kg dry matter	0.62	1.05	0.87	0.87	0.79	0.67	0.68		
Content per SFU									
Kg dry matter	1.60	0.95	1.15	1.15	1.27	1.49	1.47		
Kg feed	7.28	7.34	7.67	8.24	7.04	9.95	6.14		
Digestible crude protein, g	205	193	147	104	156	201	148		
AAT, g	113	69	84	94	87	102	95		
PBV, g	64	97	43	-17	38	78	25		
Fatty acids, g	31	26	40	13	21	23	28		
Sugar, g	192	115	138	115	127	179	177		
Starch, g	0	19	23	0	0	0	88		
Digestible cell wall carbohydr., g	485	336	387	605	541	493	462		
FFk, fill cows	0.92	0.31	0.45	0.54	0.53	0.69	0.72		
FFu, fill young stock	1.88	0.84	1.04	1.25	1.17	1.44	1.64		
Chewing time, minutes	139	49	86	52	62	94	93		

Whole crop, fresh/ lucerne silage	Barley, whole crop, boot	Barley, whole crop, dough	Oats, whole crop, boot	Maize forage	Rye, whole crop, boot	Peas, whole crop, dough		Lucerne silage, high DOM	Lucerne silage, low DOM
Feed number	481	483	486	492	497	499		501	502
Dry matter, pct	18.0	35.0	25.0	23.0	16.0	23.0		39.0	40.0
% in dry matter:									
Ash	10.0	6.1	8.5	5.0	8.0	8.0		10.7	10.3
Crude protein	14.0	10.5	13.0	10.0	14.0	16.5		18.6	17.7
Digestible crude protein	10.0	6.8	9.1	6.3	10.0	12.3		14.3	13.5
AAT (amino acids absorbed)	7.5	7.1	6.3	8.4	7.8	7.5		5.7	4.8
PBV (protein balance rumen)	0.7	-2.7	0.9	-4.9	0.5	2.9		7.8	8.6
Crude fat	2.0	2.0	2.5	2.2	3.9	3.0		4.5	4.5
Digestible crude fat	0.9	0.9	1.4	1.1	2.7	1.9		3.3	3.3
Fatty acids	1.3	1.3	1.6	1.4	2.5	2.0		2.4	2.2
Iodine number	127	127							
Carbohydrates	74.0	81.4	76.0	82.8	74.1	72.5		66.2	67.5
Crude fiber	24.0	21.0	25.0	23.0	26.0	20.0		25.0	33.0
Sugar	12.0	8.0	12.0	8.0	18.0	12.0		1.0	1.0
Starch	6.0	24.0	6.0	17.0	5.0	15.0		0.0	0.0
Digestible cell wall carbohydr. NDF	36.8	27.5	33.3	36.0	33.2	28.7		43.9	35.1
Digestibility coefficients									
Crude protein	72	64	70	63	72	75		77	76
EPD (% of N)	75	75	77	60	75	78		85	85
Original protein in the intestine	93	87	87	89	95	93		93	93
Undegraded protein in the intes.	72	48	43	73	80	68		53	53
Crude fat	46	46	56	51	70	63		74	74
Carbohydrates	74	73	67	74	76	77		68	54
Organic matter	73.0	71.5	67.5	72.0	75.0	76.0		70.0	59.0
Minerals, per kg dry matter									
Calcium, g	5.5	3.2	5.0	3.0	4.5	11.0		14.0	14.0
Phosphorus, g	3.4	2.5	3.0	3.0	3.3	2.7		3.0	3.0
Magnesium, g	1.4	1.2	2.0	1.5	1.4	2.3		2.2	2.2
Potassium, g	29.5	14.0	30.0	16.0	20.0	20.0		31.0	31.0
Sodium, g	1.5	1.1	0.5	0.2	0.5	1.1		0.6	0.6
Chloride, g		5.8		2.3		6.0		8.0	8.0
Sulfur, g		1.5		1.0		2.0		1.9	1.9
CAB, meq (cat-anion-balance)		149		291		265		475	475
Iron, mg		120		60		109		190	190
Manganese, mg		25		25		64		38	38
Zink, mg		25		30		27		63	63
Copper, mg		4		4		12		7	7
Cobalt, mg		0.08		0.02		0.07		0.10	0.10
Selenium, mg		0.04		0.03		0.02		0.03	0.03
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.								40	40
Beta-caroten, mg								100	100
Vit-D, 1000 i.e.									
Vit-E, mg								90	90
Structure/fill, per kg dry mat.									
Chewing time, minutes	54	47	56	52	59	45		56	74
FFk, fill cows	0.52	0.51	0.55	0.51	0.48	0.39		0.43	0.50
FFu, fill young stock	1.12	1.11	1.15	1.11	1.09	0.90		0.96	1.03
Energy									
Dig. energy, MJ per kg dry matter	12.2	12.2	11.6	12.5	13.1	13.3		12.4	10.6
SFU per kg dry matter	0.76	0.77	0.69	0.78	0.84	0.87		0.77	0.57
Content per SFU									
Kg dry matter	1.32	1.30	1.46	1.28	1.20	1.14		1.30	1.76
Kg feed	7.35	3.72	5.83	5.55	7.48	4.98		3.34	4.39
Digestible crude protein, g	133	88	132	80	120	141		186	236
AAT, g	99	93	92	107	93	86		75	84
PBV, g	10	-36	12	-62	5	33		102	151
Fatty acids, g	17	16	24	18	30	22		32	38
Sugar, g	159	104	175	102	215	137		13	18
Starch, g	79	312	87	217	60	172		0	0
Digestible cell wall carbohydr., g	486	357	485	459	398	328		572	617
FFk, fill cows	0.68	0.67	0.80	0.65	0.58	0.44		0.56	0.88
FFu, fill young stock	1.48	1.45	1.67	1.42	1.31	1.03		1.26	1.81
Chewing time, minutes	71	61	82	66	71	51		73	130

Clover-grass silage	Clover-grass sil., high DOM, 20% clov.	Clover-grass sil., med. DOM, 20% clov.	Clover-grass sil., low DOM, 20% clov.	Clover-grass sil., high DOM, 40% clov.	Clover-grass sil., med. DOM, 40% clov.	Clover-grass sil., low DOM, 40% clov.	Clover-grass sil., high DOM, 60% clov.	Clover-grass sil., med. DOM, 60% clov.	Clover-grass sil., low DOM, 60% clov.
Feed number	521	522	523	524	525	526	527	528	529
Dry matter, pct	34.0	35.0	37.0	34.0	35.0	37.0	34.0	35.0	37.0
% in dry matter:									
Ash	9.8	9.8	9.8	10.1	10.1	10.1	10.7	10.7	10.7
Crude protein	16.8	15.6	13.8	17.2	16.3	14.8	18.6	18.1	16.9
Digestible crude protein	12.6	11.5	9.8	13.0	12.2	10.8	14.3	13.8	12.7
AAT (amino acids absorbed)	7.1	6.9	6.5	7.0	6.7	6.4	6.7	6.3	6.0
PBV (protein balance rumen)	3.6	2.9	1.8	4.1	3.8	2.9	5.8	6.0	5.4
Crude fat	4.6	4.4	4.2	4.6	4.4	4.2	4.6	4.4	4.2
Digestible crude fat	3.4	3.2	3.0	3.4	3.2	3.0	3.4	3.2	3.0
Fatty acids	1.8	1.7	1.6	1.8	1.7	1.6	1.8	1.7	1.6
Iodine number	210	210	210	210	210	210	210	210	210
Carbohydrates	68.8	70.2	72.2	68.1	69.2	70.9	66.1	66.8	68.2
Crude fiber	24.7	27.3	30.1	24.2	26.4	28.9	23.1	24.8	26.9
Sugar	4.5	3.9	3.3	4.6	3.4	3.0	3.6	2.9	2.6
Starch	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0
Digestible cell wall carbohydr.	49.3	47.1	44.2	48.1	45.8	42.8	46.8	43.7	40.4
NDF	49	51	54	48	49	51			
Digestibility coefficients									
Crude protein	75	74	71	76	75	73	77	76	75
EPD (% of N)	79	78	76	80	79	77	82	81	80
Original protein in the intestine	91	91	91	91	91	91	91	91	91
Undegraded protein in the intes.	56	59	63	55	58	61	51	53	56
Crude fat	74	73	72	74	73	72	74	73	72
Carbohydrates	80	74	67	80	73	67	79	73	66
Organic matter	78.5	74.0	68.0	78.5	73.5	68.0	78.5	73.5	68.0
Minerals, per kg dry matter									
Calcium, g	6.5	6.5	6.5	7.9	7.9	7.9	10.9	10.9	10.9
Phosphorus, g	3.9	3.7	3.4	3.9	3.7	3.4	3.9	3.7	3.4
Magnesium, g	1.9	1.9	1.9	2.1	2.1	2.1	2.4	2.4	2.4
Potassium, g	33.0	31.0	27.0	32.0	29.0	27.0	35.0	30.0	27.0
Sodium, g	1.7	1.6	1.4	1.6	1.6	1.5	1.6	1.6	1.5
Chloride, g	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Sulfur, g	2.0	1.9	1.8	2.0	1.9	1.8	2.0	1.9	1.8
CAB, meq (cat-anion-balance)	399	349	245	369	298	249	445	324	249
Iron, mg	230	230	230	230	230	230	230	230	230
Manganese, mg	70	70	70	70	70	70	50	50	50
Zink, mg	60	60	60	60	60	60	50	50	50
Copper, mg	7	7	7	8	8	8	9	9	9
Cobalt, mg	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Selenium, mg	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	60	60	60	60	60	60	60	60	60
Beta-caroten, mg	150	150	150	150	150	150	150	150	150
Vit-D, 1000 i.e.									
Vit-E, mg	75	75	75	75	75	75	75	75	75
Structure/fill, per kg dry mat.									
Chewing time, minutes	56	61	68	54	59	65	52	56	61
FFk, fill cows	0.44	0.47	0.52	0.42	0.46	0.50	0.40	0.44	0.48
FFu, fill young stock	1.11	1.12	1.15	1.07	1.08	1.11	1.03	1.05	1.06
Energy									
Dig. energy, MJ per kg dry matter	13.7	12.9	11.8	13.7	12.8	11.8	13.7	12.9	11.9
SFU per kg dry matter	0.90	0.81	0.69	0.90	0.81	0.70	0.91	0.82	0.71
Content per SFU									
Kg dry matter	1.11	1.23	1.44	1.11	1.24	1.43	1.10	1.22	1.40
Kg feed	3.27	3.52	3.90	3.27	3.54	3.86	3.25	3.50	3.78
Digestible crude protein, g	140	142	142	144	151	154	158	169	178
AAT, g	79	85	94	78	83	91	74	78	85
PBV, g	40	35	26	45	47	42	64	73	76
Fatty acids, g	20	21	24	20	21	23	20	21	23
Sugar, g	50	48	48	51	42	43	40	36	36
Starch, g	11	12	14	17	19	21	22	24	28
Digestible cell wall carbohydr., g	547	581	637	534	567	611	517	535	565
FFk, fill cows	0.48	0.58	0.75	0.47	0.57	0.72	0.45	0.54	0.67
FFu, fill young stock	1.23	1.38	1.66	1.19	1.34	1.58	1.14	1.28	1.49
Chewing time, minutes	62	76	98	60	74	93	57	68	85

Grass silage	Spring sown Italian ryegrass, silage	Italian ryegrass after cereal crop, silage	Italian ryegrass after grain, silage	Cocksfoot, silage	Permanent meadow-grass, silage	Grass silage, high DOM	Grass silage, medium DOM	Grass silage, low DOM	Grass silage, very low DOM
Feed number	546	548	549	555	558	564	565	566	570
Dry matter, pct	34.0	30.0	28.0	28.0	35.0	34.0	35.0	37.0	42.0
% in dry matter:									
Ash	11.3	12.9	13.0	10.0	8.9	10.2	9.8	9.3	8.9
Crude protein	16.1	17.4	17.6	16.5	14.0	16.5	15.2	13.3	12.2
Digestible crude protein	12.0	13.2	13.4	12.3	10.0	12.3	11.1	9.4	8.3
AAT (amino acids absorbed)	6.7	6.3	6.2	6.3	6.1	6.8	6.4	5.9	5.4
PBV (protein balance rumen)	3.8	5.6	5.9	4.8	2.3	3.8	3.1	1.9	1.7
Crude fat	4.5	4.5	4.5	4.0	4.2	4.6	4.4	4.2	4.0
Digestible crude fat	3.3	3.3	3.3	2.8	3.0	3.4	3.2	3.0	2.8
Fatty acids	1.8	1.8	1.8	1.6	1.6	1.8	1.7	1.6	1.6
Iodine number	180	180	180	180	180	180	180	180	180
Carbohydrates	68.1	65.2	64.9	69.5	72.9	68.7	70.6	73.2	74.9
Crude fiber	25.7	25.3	25.3	28.0	29.4	25.3	28.2	31.0	32.1
Sugar	4.6	3.2	3.9	2.0	4.6	4.5	4.3	3.7	3.5
Starch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Digestible cell wall carbohydr. NDF	44.9	43.4	42.1	44.0	42.0	49.3	46.7	44.2	41.8
Digestibility coefficients									
Crude protein	74	76	76	75	72	75	73	70	68
EPD (% of N)	79	80	80	79	76	82	80	79	80
Original protein in the intestine	92	92	92	92	88	92	90	88	87
Undegraded protein in the intes.	63	60	59	62	50	57	49	44	35
Crude fat	74	74	74	71	72	74	73	72	71
Carbohydrates	73	72	71	66	64	78	72	65	60
Organic matter	73.0	72.5	72.0	68.0	65.5	77.5	72.5	66.5	62.0
Minerals, per kg dry matter									
Calcium, g	6.3	6.3	6.2	6.0	5.9	6.1	6.1	6.1	6.1
Phosphorus, g	4.3	4.4	4.5	3.5	2.8	3.8	3.6	3.2	2.8
Magnesium, g	1.9	2.0	2.0	1.8	1.7	1.8	1.8	1.8	1.5
Potassium, g	35.0	38.0	36.0	28.0	18.0	33.0	30.0	25.0	21.0
Sodium, g	2.3	1.5	1.3	2.3	1.4	1.8	1.8	1.8	1.1
Chloride, g		10.5	10.5			12.0	12.0	12.0	12.0
Sulfur, g	3.2	2.2	1.9		1.9	2.0	2.0	2.0	1.5
CAB, meq (cat-anion-balance)		604	563			459	382	255	153
Iron, mg	230	230	230	220		220	220	220	220
Manganese, mg	50	67	72	60	65	76	76	76	94
Zink, mg	50	83	75	25	70	68	68	68	69
Copper, mg	11	9	9	7	6	7	7	7	7
Cobalt, mg	0.70	0.70	0.70	0.06		0.40	0.40	0.40	0.40
Selenium, mg	0.04	0.03	0.03			0.04	0.04	0.04	0.04
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	60	60	60	60		60	60	60	60
Beta-caroten, mg	150	150	150	150		150	150	150	150
Vit-D, 1000 i.e.									
Vit-E, mg	75	75	75	75	75	75	75	75	75
Structure/fill, per kg dry mat.									
Chewing time, minutes	58	57	57	63	66	57	63	70	72
FFk, fill cows	0.50	0.51	0.53	0.55	0.56	0.46	0.51	0.56	0.59
FFu, fill young stock	1.18	1.24	1.27	1.29	1.22	1.16	1.17	1.20	1.21
Energy									
Dig. energy, MJ per kg dry matter	12.6	12.4	12.3	11.9	11.5	13.5	12.6	11.6	10.8
SFU per kg dry matter	0.79	0.77	0.76	0.71	0.67	0.88	0.78	0.67	0.59
Content per SFU									
Kg dry matter	1.27	1.30	1.31	1.40	1.49	1.14	1.28	1.49	1.69
Kg feed	3.74	4.33	4.69	5.01	4.27	3.36	3.65	4.03	4.03
Digestible crude protein, g	152	171	175	173	150	141	142	140	141
AAT, g	85	82	82	88	90	78	81	88	91
PBV, g	48	73	78	68	34	44	40	28	28
Fatty acids, g	22	23	23	22	24	20	22	24	26
Sugar, g	58	42	51	28	69	51	55	55	59
Starch, g	0	0	0	0	0	0	0	0	0
Digestible cell wall carbohydr., g	570	565	552	617	628	564	598	660	708
FFk, fill cows	0.64	0.66	0.70	0.78	0.83	0.53	0.65	0.83	1.00
FFu, fill young stock	1.50	1.61	1.66	1.81	1.83	1.32	1.50	1.80	2.05
Chewing time, minutes	73	74	75	88	99	65	81	104	122

Fodder galega-, clover and marrowstem kale silage etc.	Fodder galega, silage	White clover, early bloom, silage	Red clover, early bloom, silage	Marrow-stem kale, silage	Field bean whole crop, silage	Sweet lupin whole crop, silage	Oats + peas + vetches, silage		
Feed number	571	572	573	575	576	579	580		
Dry matter, pct	23.0	20.0	18.0	17.0	20.0	26.0	34.0		
% in dry matter:									
Ash	11.0	11.0	9.0	12.9	9.0	8.6	8.1		
Crude protein	18.0	24.0	18.0	11.3	17.0	16.0	12.5		
Digestible crude protein	13.7	19.3	13.7	7.5	12.8	11.9	8.6		
AAT (amino acids absorbed)	6.3	5.4	6.5	6.2	6.0	5.8	5.7		
PBV (protein balance rumen)	6.1	13.2	6.2	0.3	4.8	5.4	1.5		
Crude fat	3.0	5.6	7.3	4.1	2.5	3.8	2.0		
Digestible crude fat	1.9	4.4	6.0	2.9	1.4	2.6	0.9		
Fatty acids	2.0	2.7	3.5	2.7	1.6	2.5	1.3		
Iodine number									
Carbohydrates	68.0	59.4	65.7	71.7	71.5	71.6	77.4		
Crude fiber	31.0	20.0	28.0	28.0	27.0	35.0	28.6		
Sugar	2.0	1.0	1.0	1.0	12.0	1.0	1.0		
Starch	0.0	2.0	2.0	0.0	0.0	6.0	15.0		
Digestible cell wall carbohydr. NDF	39.3	40.1	43.7	48.7	39.3	36.5	33.3		
Digestibility coefficients									
Crude protein	76	81	76	66	75	74	69		
EPD (% of N)	75	87	81	81	82	82	82		
Original protein in the intestine	91	92	94	93	87	93	88		
Undegraded protein in the intes.	64	38	68	63	28	61	33		
Crude fat	63	78	82	72	56	70	46		
Carbohydrates	61	72	71	69	72	61	64		
Organic matter	64.0	75.0	73.0	69.0	72.0	63.5	64.0		
Minerals, per kg dry matter									
Calcium, g	13.0	18.0	15.0	19.4	13.0	10.2	7.0		
Phosphorus, g	3.0	4.1	3.0	4.3	4.7	3.4	3.4		
Magnesium, g	2.4	2.2	2.8	2.8	2.5	2.8	1.9		
Potassium, g	22.0	29.0	25.0	30.0	17.0	19.0	23.0		
Sodium, g	0.6	1.4	0.4	2.5	2.7	1.8	0.5		
Chloride, g	7.3								
Sulfur, g	2.7					1.7	1.6		
CAB, meq (cat-anion-balance)	214								
Iron, mg	290	150	133						
Manganese, mg	42	60	60		40	92	51		
Zink, mg	32	30	29		32	91	75		
Copper, mg	7	9	7		7	8	5		
Cobalt, mg	0.40	0.06	0.17		0.17				
Selenium, mg	0.04								
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	72	43	63	63	61	79	64		
FFk, fill cows	0.64	0.44	0.48	0.69	0.43	0.51	0.52		
FFu, fill young stock	1.27	1.20	1.27	1.58	1.05	1.17	1.16		
Energy									
Dig. energy, MJ per kg dry matter	11.1	13.6	13.5	11.4	12.5	11.3	10.9		
SFU per kg dry matter	0.62	0.91	0.86	0.66	0.77	0.63	0.61		
Content per SFU									
Kg dry matter	1.60	1.10	1.16	1.51	1.30	1.59	1.63		
Kg feed	6.97	5.50	6.43	8.88	6.50	6.12	4.80		
Digestible crude protein, g	220	213	159	113	166	189	141		
AAT, g	100	59	75	93	78	92	93		
PBV, g	98	145	72	4	62	85	24		
Fatty acids, g	31	30	41	40	21	39	21		
Sugar, g	32	11	12	15	156	16	16		
Starch, g	0	22	23	0	0	96	245		
Digestible cell wall carbohydr., g	631	441	505	734	511	581	543		
FFk, fill cows	1.03	0.49	0.55	1.05	0.56	0.81	0.84		
FFu, fill young stock	2.03	1.32	1.47	2.39	1.36	1.87	1.89		
Chewing time, minutes	115	47	73	95	79	125	104		

Whole crop silage	Barley, whole crop silage, boot	Barley, whole crop sil., high DOM	Barley, whole crop sil., dough, med. DOM	Barley, whole crop sil., dough, low DOM	Winter-barley, whole crop sil., dough		Oats, whole crop silage, dough		
Feed number	581	582	583	584	585		586		
Dry matter, pct	33.0	37.0	36.0	35.0	37.0		34.0		
% in dry matter:									
Ash	10.5	5.4	5.5	5.8	5.7		7.8		
Crude protein	15.5	10.4	10.4	10.4	10.3		11.4		
Digestible crude protein	11.4	6.7	6.7	6.7	6.6		7.6		
AAT (amino acids absorbed)	6.8	7.0	6.5	6.1	6.2		5.5		
PBV (protein balance rumen)	3.2	-2.4	-1.8	-1.3	-1.7		0.6		
Crude fat	2.0	2.0	2.0	2.0	2.0		2.5		
Digestible crude fat	0.9	0.9	0.9	0.9	0.9		1.4		
Fatty acids	1.3	1.3	1.3	1.3	1.3		1.6		
Iodine number									
Carbohydrates	72.0	82.2	82.1	81.8	82.0		78.3		
Crude fiber	28.3	20.3	22.0	24.0	24.5		27.0		
Sugar	2.0	1.8	1.8	1.8	1.8		1.0		
Starch	5.0	25.8	23.3	20.4	18.3		15.0		
Digestible cell wall carbohydr. NDF	46.4	33.4	33.0	32.9	36.5		34.0		
Digestibility coefficients									
Crude protein	74	64	64	64	64		67		
EPD (% of N)	82	82	82	82	82		84		
Original protein in the intestine	93	89	87	85	85		87		
Undegraded protein in the intes.	61	39	28	17	17		19		
Crude fat	46	46	46	46	46		56		
Carbohydrates	74	74	71	67	69		64		
Organic matter	73.5	72.5	69.5	66.5	68.0		64.0		
Minerals, per kg dry matter									
Calcium, g	5.6	3.1	3.3	3.6	3.4		4.8		
Phosphorus, g	3.5	2.7	2.7	2.7	2.7		3.2		
Magnesium, g	1.6	1.3	1.3	1.3	1.3		1.5		
Potassium, g	29.5	16.0	17.0	18.0	17.0		26.0		
Sodium, g	1.1	0.7	0.7	0.7	0.7		1.5		
Chloride, g		5.8	5.8	5.8	5.8				
Sulfur, g	2.0	1.3	1.2	1.1	1.2		1.6		
CAB, meq (cat-anion-balance)		195	227	259	227				
Iron, mg		120	120	120	120				
Manganese, mg	41	26	29	32	30		81		
Zink, mg	60	52	54	76	61		67		
Copper, mg	7	6	6	6	5		5		
Cobalt, mg		0.08	0.08	0.08	0.08				
Selenium, mg	0.03	0.03	0.03	0.03	0.03				
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.		2	2	2	2				
Beta-caroten, mg		4	4	4	4				
Vit-D, 1000 i.e.									
Vit-E, mg		100	100	100	100				
Structure/fill, per kg dry mat.									
Chewing time, minutes	64	46	49	54	55		61		
FFk, fill cows	0.52	0.44	0.46	0.49	0.48		0.52		
FFu, fill young stock	1.21	1.11	1.13	1.16	1.14		1.19		
Energy									
Dig. energy, MJ per kg dry matter	12.3	12.5	12.0	11.5	11.7		11.0		
SFU per kg dry matter	0.75	0.80	0.74	0.68	0.70		0.62		
Content per SFU									
Kg dry matter	1.33	1.26	1.35	1.47	1.42		1.61		
Kg feed	4.03	3.40	3.76	4.20	3.84		4.73		
Digestible crude protein, g	152	84	90	98	94		122		
AAT, g	90	87	88	89	88		89		
PBV, g	42	-30	-25	-19	-24		10		
Fatty acids, g	17	16	17	19	18		26		
Sugar, g	27	23	24	26	26		16		
Starch, g	66	324	315	300	260		241		
Digestible cell wall carbohydr., g	618	420	446	483	519		546		
FFk, fill cows	0.69	0.55	0.63	0.72	0.68		0.83		
FFu, fill young stock	1.60	1.39	1.53	1.70	1.62		1.91		
Chewing time, minutes	85	57	66	79	78		98		

Whole crop silage	Wheat + grass, whole crop silage	Wheat + pea, whole crop sil., dough	Wheat, whole crop sil., dough, high DOM	Wheat, whole crop sil., dough, med. DOM	Wheat, whole crop sil., dough, low DOM		Maize silage, high DOM	Maize silage, medium DOM	Maize silage, low DOM
Feed number	587	588	589	590	591		592	593	594
Dry matter, pct	36.0	35.0	42.0	41.0	41.0		32.0	31.0	28.6
% in dry matter:									
Ash	8.0	6.0	4.8	4.8	5.2		4.3	4.2	4.2
Crude protein	13.0	12.0	9.8	9.4	9.1		9.0	8.7	8.7
Digestible crude protein	9.1	8.2	6.1	5.7	5.5		5.4	5.1	5.1
AAT (amino acids absorbed)	6.2	6.6	7.2	6.9	6.6		8.8	8.3	7.6
PBV (protein balance rumen)	1.3	-0.3	-3.1	-3.0	-2.8		-6.4	-6.0	-5.1
Crude fat	3.3	2.0	2.0	2.0	2.0		2.2	2.2	2.2
Digestible crude fat	2.2	0.9	0.9	0.9	0.9		1.1	1.1	1.1
Fatty acids	1.7	1.3	1.3	1.3	1.3		1.4	1.4	1.4
Iodine number	180	180							
Carbohydrates	75.7	80.0	83.4	83.8	83.7		84.5	84.9	84.9
Crude fiber	25.0	22.0	20.5	22.2	24.4		18.2	19.7	22.4
Sugar	3.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Starch	13.0	25.0	28.1	24.7	21.7		30.7	29.0	24.4
Digestible cell wall carbohydr. NDF	36.7	30.7	32.4	33.3	33.0		35.5	35.1	36.4
			32	39	46				
Digestibility coefficients									
Crude protein	70	68	62	61	60		60	59	59
EPD (% of N)	82	83	82	82	80		64	67	70
Original protein in the intestine	89	89	91	91	89		91	89	87
Undegraded protein in the intes.	39	35	50	50	45		75	67	57
Crude fat	66	46	46	46	46		51	51	51
Carbohydrates	70	72	75	72	68		81	78	74
Organic matter	69.5	71.0	73.0	70.0	66.5		78.0	75.5	72.0
Minerals, per kg dry matter									
Calcium, g	5.4	5.1	2.4	2.4	2.4		2.3	2.2	2.1
Phosphorus, g	3.2	2.7	2.4	2.4	2.4		2.6	2.6	2.6
Magnesium, g	1.6	1.4	1.1	1.1	1.1		1.3	1.3	1.3
Potassium, g	21.0	15.0	12.0	13.0	14.0		12.0	12.0	12.0
Sodium, g	0.9	0.5	0.5	0.5	0.5		0.4	0.4	0.4
Chloride, g	9.0	6.0	6.3	6.3	6.3		2.3	2.3	2.3
Sulfur, g	1.5	1.3	1.1	1.1	1.1		1.0	0.7	0.5
CAB, meq (cat-anion-balance)	229	155	82	108	134		197	216	228
Iron, mg	262	120	70	70	70		60	60	60
Manganese, mg	56	28	28	29	30		23	21	20
Zink, mg	76	46	41	49	67		60	71	84
Copper, mg	7	6	5	5	5		5	5	6
Cobalt, mg	0.25	0.15	0.05	0.05	0.05		0.02	0.02	0.02
Selenium, mg	0.04	0.02	0.03	0.03	0.03		0.03	0.03	0.03
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	30		1	1	1		1	1	1
Beta-caroten, mg	75		3	3	3		2	2	2
Vit-D, 1000 i.e.									
Vit-E, mg	90		75	75	75		25	25	25
Structure/fill, per kg dry mat.									
Chewing time, minutes	56	50	46	50	55		33	35	40
FFk, fill cows	0.47	0.44	0.44	0.46	0.49		0.39	0.41	0.44
FFu, fill young stock	1.13	1.05	1.10	1.12	1.15		1.09	1.11	1.14
Energy									
Dig. energy, MJ per kg dry matter	12.1	12.3	12.6	12.1	11.4		13.5	13.1	12.5
SFU per kg dry matter	0.74	0.77	0.81	0.75	0.68		0.90	0.85	0.79
Content per SFU									
Kg dry matter	1.36	1.30	1.24	1.34	1.48		1.11	1.17	1.27
Kg feed	3.77	3.72	2.95	3.26	3.60		3.47	3.78	4.44
Digestible crude protein, g	123	106	76	77	81		60	60	65
AAT, g	84	86	89	92	97		98	97	97
PBV, g	17	-4	-39	-40	-42		-71	-70	-65
Fatty acids, g	23	16	16	17	19		16	17	18
Sugar, g	41	26	25	27	30		22	23	25
Starch, g	176	326	349	330	320		341	340	310
Digestible cell wall carbohydr., g	498	399	401	444	486		394	412	462
FFk, fill cows	0.63	0.58	0.54	0.61	0.73		0.44	0.49	0.56
FFu, fill young stock	1.53	1.37	1.37	1.50	1.70		1.21	1.30	1.45
Chewing time, minutes	76	64	57	67	81		36	42	51

Whole crop silage	Triticale, whole crop silage, dough		Rye, whole crop silage, boot		Peas, whole crop silage, boot	Barley + pea silage, dough, 20% peas	Barley + pea silage, dough, 40% peas	Barley + pea silage, dough, 60% peas	Peas, whole crop silage, dough
Feed number	595		597		578	596	598	600	599
Dry matter, pct	41.0		27.0		33.0	34.0	32.0	32.0	33.0
% in dry matter:									
Ash	5.2		9.8		9.1	5.9	6.5	7.3	8.6
Crude protein	9.1		14.1		16.3	11.1	13.2	15.2	16.7
Digestible crude protein	5.5		10.1		12.2	7.3	9.3	11.1	12.5
AAT (amino acids absorbed)	6.6		6.9		6.5	6.7	6.6	6.5	6.5
PBV (protein balance rumen)	-2.8		2.0		4.4	-1.2	1.1	3.1	4.8
Crude fat	2.0		3.9		2.0	2.0	2.0	2.0	2.0
Digestible crude fat	0.9		2.7		0.9	0.9	0.9	0.9	0.9
Fatty acids	1.3		2.5		1.3	1.3	1.3	1.3	1.3
Iodine number									
Carbohydrates	83.7		72.2		72.6	81.0	78.3	75.5	72.7
Crude fiber	24.4		27.0		25.0	22.5	22.8	22.9	22.0
Sugar	2.0		2.0		2.0	2.0	2.3	2.5	2.7
Starch	21.7		0.0		2.0	22.2	19.8	17.6	15.0
Digestible cell wall carbohydr.	33.0		51.4		48.8	33.9	34.1	34.1	35.1
NDF	46								46
Digestibility coefficients									
Crude protein	60		72		75	66	70	73	75
EPD (% of N)	80		82		85	83	84	84	85
Original protein in the intestine	89		95		93	90	91	91	93
Undegraded protein in the intes.	45		72		53	41	44	44	53
Crude fat	46		70		46	46	46	46	46
Carbohydrates	68		74		73	72	72	72	73
Organic matter	66.5		73.5		72.5	70.5	71.0	71.5	72.5
Minerals, per kg dry matter									
Calcium, g	2.4		3.9		9.4	4.5	5.7	6.9	9.2
Phosphorus, g	2.4		3.7		3.3	2.7	2.9	3.1	3.2
Magnesium, g	1.1		1.4		2.0	1.4	1.5	1.7	1.9
Potassium, g	14.0		27.0		19.0	17.0	18.0	19.0	21.0
Sodium, g	0.5		0.6		0.3	0.6	0.6	0.6	0.6
Chloride, g	6.3		5.9		6.0	5.8	5.9	5.9	6.0
Sulfur, g	1.1		1.7		1.1	1.2	1.3	1.3	1.4
CAB, meg (cat-anion-balance)	134		444		261	222	239	265	307
Iron, mg	70		109		290	155	190	220	290
Manganese, mg	30		42		39	28	30	32	36
Zink, mg	67		48		67	57	60	61	66
Copper, mg	5		6		10	6	6	7	8
Cobalt, mg	0.05		0.07		0.25	0.12	0.15	0.18	0.25
Selenium, mg	0.03		0.07		0.02	0.02	0.02	0.02	0.02
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	1					2	2	3	4
Beta-caroten, mg	3					5	6	7	9
Vit-D, 1000 i.e.									
Vit-E, mg	75					80	90	90	
Structure/fill, per kg dry mat.									
Chewing time, minutes	55		65		56	51	51	52	50
FFk, fill cows	0.49		0.53		0.43	0.45	0.44	0.43	0.42
FFu, fill young stock	1.15		1.27		0.94	1.09	1.05	1.02	0.94
Energy									
Dig. energy, MJ per kg dry matter	11.4		12.6		12.4	12.1	12.3	12.4	12.5
SFU per kg dry matter	0.68		0.79		0.77	0.75	0.77	0.78	0.79
Content per SFU									
Kg dry matter	1.48		1.27		1.30	1.33	1.30	1.29	1.27
Kg feed	3.60		4.71		3.93	3.90	4.08	4.02	3.84
Digestible crude protein, g	81		129		158	97	121	143	159
AAT, g	97		87		84	89	86	83	82
PBV, g	-42		26		57	-15	14	40	60
Fatty acids, g	19		32		17	17	16	16	16
Sugar, g	30		25		26	27	30	32	34
Starch, g	320		0		26	295	258	226	190
FFk, fill cows	486		654		634	450	445	439	445
FFu, fill young stock	0.73		0.67		0.56	0.60	0.58	0.56	0.53
FFu, fill young stock	1.70		1.62		1.22	1.44	1.37	1.31	1.18
Chewing time, minutes	81		83		73	67	67	66	63

Hay	Lucerne hay, full bloom	Clover hay, high DOM	Clover hay, Low DOM	Grass hay		Grass hay, art. dried, high DOM	Grass hay, art. dried, med. DOM	Grass hay, art. dried, low DOM	Lucerne hay, art. dried
Feed number	602	625	626	665		671	672	673	675
Dry matter, pct	89.0	84.0	84.0	83.0		90.0	90.0	90.0	91.0
% in dry matter:									
Ash	8.6	8.5	7.0	7.7		9.0	9.0	9.0	9.0
Crude protein	16.8	13.2	9.3	12.1		18.0	18.0	17.0	17.0
Digestible crude protein	12.6	9.3	5.6	8.3		11.9	11.9	11.0	11.5
AAT (amino acids absorbed)	6.0	7.7	6.8	7.1		9.6	8.8	7.9	6.7
PBV (protein balance rumen)	5.9	-0.7	-2.7	-0.9		1.0	1.8	1.8	4.9
Crude fat	2.9	2.4	2.1	2.6		3.7	3.4	3.1	3.8
Digestible crude fat	1.8	1.3	1.0	1.5		2.6	2.3	2.0	2.6
Fatty acids	1.4	1.2	1.0	1.2		2.0	1.6	1.3	1.8
Iodine number	210								210
Carbohydrates	71.7	75.9	81.6	77.6		69.3	69.6	70.9	70.2
Crude fiber	32.3	28.7	33.4	31.0		24.0	26.0	28.0	32.0
Sugar	8.0	8.0	8.0	8.0		13.0	8.0	6.0	8.0
Starch	0.0	1.5	1.5	0.0		0.0	0.0	0.0	0.0
Digestible cell wall carbohydr.	30.6	44.0	38.7	42.2		40.8	41.5	40.2	33.3
NDF		53	55						
Digestibility coefficients									
Crude protein	75	70	61	68		66	66	65	68
EPD (% of N)	76	67	64	67		59	59	59	72
Original protein in the intestine	93	91	91	90		92	89	86	93
Undegraded protein in the intes.	71	73	75	70		80	73	66	75
Crude fat	62	54	48	58		69	67	64	70
Carbohydrates	54	70	59	65		78	71	65	59
Organic matter	58.0	70.0	59.0	65.0		75.0	70.0	65.0	61.0
Minerals, per kg dry matter									
Calcium, g	16.8	6.2	6.2	5.1		5.5	5.5	5.5	19.0
Phosphorus, g	2.7	3.0	3.0	2.6		3.5	3.5	3.5	3.0
Magnesium, g	2.3	1.6	1.6	1.5		1.7	1.7	1.7	2.0
Potassium, g	24.0	26.0	26.0	20.0		30.0	30.0	30.0	30.0
Sodium, g	0.5	0.5	0.5	1.2		1.8	1.8	1.8	1.5
Chloride, g				8.0		12.0	12.0	12.0	
Sulfur, g	2.6	1.4	1.4	1.4		2.0	2.0	2.0	
CAB, meq (cat-anion-balance)				251		382	382	382	
Iron, mg	250								250
Manganese, mg	45	45	45	91					45
Zink, mg	24	87	87	79					24
Copper, mg	9	8	8	7					9
Cobalt, mg		0.05	0.05						
Selenium, mg									
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.		12	12	12		40	40	40	40
Beta-caroten, mg		30	30	30		100	100	100	100
Vit-D, 1000 i.e.									
Vit-E, mg		20	20	20		80	80	20	80
Structure/fill, per kg dry mat.									
Chewing time, minutes	97	86	100	93		54	59	63	72
FFk, fill cows	0.51	0.54	0.63	0.57		0.48	0.52	0.56	0.49
FFu, fill young stock	1.08	1.20	1.33	1.24		1.09	1.12	1.16	0.99
Energy									
Dig. energy, MJ per kg dry matter	10.3	11.9	10.1	11.2		13.1	12.2	11.3	10.8
SFU per kg dry matter	0.54	0.71	0.51	0.63		0.84	0.75	0.65	0.59
Content per SFU									
Kg dry matter	1.84	1.40	1.96	1.58		1.19	1.33	1.53	1.69
Kg feed	2.07	1.67	2.34	1.91		1.32	1.48	1.70	1.85
Digestible crude protein, g	233	130	111	131		142	159	168	194
AAT, g	110	109	133	113		114	117	121	113
PBV, g	108	-10	-52	-14		12	24	27	82
Fatty acids, g	26	16	20	19		24	21	19	31
Sugar, g	148	112	157	127		155	107	92	135
Starch, g	0	21	29	0		0	0	0	0
Digestible cell wall carbohydr., g	564	617	760	669		486	554	614	563
FFk, fill cows	0.94	0.75	1.23	0.91		0.57	0.69	0.86	0.83
FFu, fill young stock	2.00	1.68	2.60	1.97		1.30	1.50	1.78	1.68
Chewing time, minutes	179	121	197	147		64	78	96	121

Grass pellets	Grass pellets, high DOM	Grass pellets, med. DOM	Grass pellets, low DOM		Lucerne pellets, high DOM	Lucerne pellets, low DOM			
Feed number	705	706	707		708	709			
Dry matter, pct	92.0	92.0	92.0		92.0	92.0			
% in dry matter:									
Ash	10.0	11.0	11.0		10.0	10.0			
Crude protein	18.0	18.0	17.0		20.0	17.0			
Digestible crude protein	11.9	11.9	11.0		14.2	11.5			
AAT (amino acids absorbed)	9.5	8.6	7.8		7.7	6.6			
PBV (protein balance rumen)	1.1	2.0	2.0		6.0	5.0			
Crude fat	3.7	3.4	3.1		3.8	3.8			
Digestible crude fat	2.6	2.3	2.0		2.6	2.6			
Fatty acids	2.0	1.6	1.3		2.1	1.8			
Iodine number	200	200	200						
Carbohydrates	68.3	67.6	68.9		66.2	69.2			
Crude fiber	24.0	25.5	28.5		25.0	32.0			
Sugar	13.0	8.0	6.0		12.0	10.0			
Starch	0.0	0.0	0.0		0.0	0.0			
Digestible cell wall carbohydr. NDF	40.0	40.1	38.9		35.0	30.7			
Digestibility coefficients									
Crude protein	66	66	65		71	68			
EPD (% of N)	59	59	59		72	72			
Original protein in the intestine	92	89	86		93	93			
Undegraded protein in the intes.	80	73	66		75	75			
Crude fat	69	67	64		70	70			
Carbohydrates	78	71	65		71	59			
Organic matter	75.0	70.0	65.0		71.0	61.0			
Minerals, per kg dry matter									
Calcium, g	5.5	5.5	5.5		19.0	19.0			
Phosphorus, g	3.5	3.5	3.5		3.0	3.0			
Magnesium, g	1.7	1.7	1.7		2.0	2.0			
Potassium, g	30.0	30.0	30.0		30.0	30.0			
Sodium, g	1.8	1.8	1.8		0.6	0.6			
Chloride, g	12.0	12.0	12.0		8.0	8.0			
Sulfur, g	2.0	2.0	2.0		1.9	1.9			
CAB, meq (cat-anion-balance)	382	382	382		449	449			
Iron, mg									
Manganese, mg									
Zink, mg									
Copper, mg									
Cobalt, mg									
Selenium, mg									
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.	40	40	40		40	40			
Beta-caroten, mg	100	100	100		100	100			
Vit-D, 1000 i.e.									
Vit-E, mg	80	80	80		80	80			
Structure/fill, per kg dry mat.									
Chewing time, minutes	4	4	4		4	5			
FFk, fill cows	0.22	0.22	0.22		0.22	0.22			
FFu, fill young stock	1.05	1.05	1.05		1.05	1.05			
Energy									
Dig. energy, MJ per kg dry matter	12.9	12.0	11.1		12.5	10.7			
SFU per kg dry matter	0.83	0.73	0.63		0.78	0.58			
Content per SFU									
Kg dry matter	1.21	1.37	1.59		1.28	1.72			
Kg feed	1.31	1.49	1.72		1.39	1.87			
Digestible crude protein, g	144	164	174		183	198			
AAT, g	115	119	123		99	114			
PBV, g	14	28	32		77	85			
Fatty acids, g	24	21	20		26	31			
Sugar, g	157	110	95		154	172			
Starch, g	0	0	0		0	0			
Digestible cell wall carbohydr., g	484	551	617		449	528			
FFk, fill cows	0.27	0.30	0.35		0.28	0.38			
FFu, fill young stock	1.27	1.44	1.67		1.35	1.80			
Chewing time, minutes	5	5	7		5	8			

Sodium hydroxid and ammonia treated straw	Barley straw, sodium hydroxid treated	Barley straw, ammonia treated, high DOM	Barley straw, ammonia treated, low DOM	Oat straw, ammonia treated	Wheat straw, ammonia treated	Rye straw, ammonia treated			
Feed number	681	682	683	686	689	697			
Dry matter, pct	82.0	85.0	85.0	85.0	85.0	85.0			
% in dry matter:									
Ash	9.5	4.5	4.5	6.0	3.1	3.6			
Crude protein	4.5	8.3	6.9	8.0	8.0	8.0			
Digestible crude protein	1.2	4.7	3.4	4.4	4.4	4.4			
AAT (amino acids absorbed)	5.6	5.3	5.0	5.0	5.0	4.4			
PBV (protein balance rumen)	-6.0	-2.3	-2.9	-2.0	-2.0	-0.9			
Crude fat	1.8	1.8	1.8	2.0	1.9	1.9			
Digestible crude fat	0.7	0.7	0.7	0.9	0.8	0.8			
Fatty acids	0.5	0.5	0.5	0.5	0.5	0.5			
Iodine number									
Carbohydrates	84.2	85.4	86.8	84.0	87.0	86.5			
Crude fiber	41.1	41.5	43.0	41.4	45.3	44.0			
Sugar	0.0	0.0	0.0	0.0	0.0	0.0			
Starch	0.0	0.0	0.0	0.0	0.0	0.0			
Digestible cell wall carbohydr. NDF	52.4	49.9	47.4	47.3	47.1	41.0			
Digestibility coefficients									
Crude protein	26	57	50	56	56	56			
EPD (% of N)	75	80	80	80	80	80			
Original protein in the intestine	67	80	80	80	80	80			
Undegraded protein in the intes.	0	0	0	0	0	0			
Crude fat	40	40	40	46	43	43			
Carbohydrates	62	58	55	56	54	47			
Organic matter	60.0	58.0	54.0	56.0	54.0	48.0			
Minerals, per kg dry matter									
Calcium, g	3.5	3.5	3.5	4.1	3.1	2.9			
Phosphorus, g	0.8	0.8	0.8	1.4	0.8	1.0			
Magnesium, g	0.9	0.9	0.9	1.1	1.0	1.0			
Potassium, g	17.0	17.0	17.0	21.0	10.0	10.0			
Sodium, g	28.1	3.7	3.7	2.3	1.3	1.5			
Chloride, g									
Sulfur, g									
CAB, meq (cat-anion-balance)									
Iron, mg	470	470	470	187	291	166			
Manganese, mg	29	83	83	83	64	74			
Zink, mg	24	43	43	81	39	19			
Copper, mg	4	6	6	7	8	4			
Cobalt, mg		0.19	0.19	0.06	0.06	0.05			
Selenium, mg	0.07	0.05	0.05						
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	92	125	129	124	136	132			
FFk, fill cows	0.65	0.65	0.65	0.65	0.65	0.70			
FFu, fill young stock	1.38	1.35	1.41	1.39	1.40	1.49			
Energy									
Dig. energy, MJ per kg dry matter	9.6	10.0	9.3	9.6	9.5	8.5			
SFU per kg dry matter	0.44	0.48	0.40	0.43	0.41	0.31			
Content per SFU									
Kg dry matter	2.28	2.09	2.50	2.31	2.42	3.18			
Kg feed	2.79	2.46	2.94	2.71	2.85	3.74			
Digestible crude protein, g	27	98	85	102	107	141			
AAT, g	127	111	126	116	121	139			
PBV, g	-137	-48	-74	-47	-48	-29			
Fatty acids, g	10	9	11	12	11	15			
Sugar, g	0	0	0	0	0	0			
Starch, g	0	0	0	0	0	0			
Digestible cell wall carbohydr., g	1197	1042	1187	1090	1139	1305			
FFk, fill cows	1.49	1.36	1.63	1.50	1.57	2.23			
FFu, fill young stock	3.16	2.81	3.54	3.19	3.39	4.75			
Chewing time, minutes	210	261	323	286	329	420			

Straw, untreated	Barley straw, spring	Barley straw, winter	Oat straw	Wheat straw	Rye straw	Pea straw	White clover straw	Perennial ryegrass straw	Red fescue straw
Feed number	781	782	785	788	796	799	715	716	717
Dry matter, pct	85.0	85.0	85.0	85.0	85.0	87.0	85.0	85.0	85.0
% in dry matter:									
Ash	4.5	4.5	6.0	3.1	3.6	10.0	9.7	5.6	4.7
Crude protein	4.0	4.0	3.7	3.3	3.8	7.2	14.5	6.5	3.8
Digestible crude protein	0.7	0.7	0.4	0.1	0.5	3.7	10.5	3.0	0.5
AAT (amino acids absorbed)	4.4	4.3	4.2	4.4	4.0	4.5	4.2	5.0	3.6
PBV (protein balance rumen)	-5.0	-4.8	-4.9	-5.5	-4.4	-3.3	1.6	-4.4	-3.7
Crude fat	1.9	1.9	2.0	1.9	1.9	1.6	1.4	1.4	1.4
Digestible crude fat	0.8	0.8	0.9	0.8	0.8	0.5	0.3	0.3	0.3
Fatty acids	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Iodine number									
Carbohydrates	89.6	89.6	88.3	91.7	90.7	81.2	74.4	86.5	90.1
Crude fiber	45.2	45.2	41.4	45.3	44.0	41.0	34.0	33.0	43.0
Sugar	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5
Starch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Digestible cell wall carbohydr.	41.4	40.5	40.0	41.7	37.2	42.6	35.2	42.1	28.9
NDF	82	82							
Digestibility coefficients									
Crude protein	18	18	12	2	14	51	72	47	14
EPD (% of N)	60	60	60	60	60	60	60	60	60
Original protein in the intestine	67	67	67	67	67	67	67	67	67
Undegraded protein in the intes.	0	0	0	0	0	0	0	0	0
Crude fat	43	43	46	43	43	34	25	25	25
Carbohydrates	46	45	45	46	41	52	53	54	37
Organic matter	45.0	44.0	44.0	44.0	40.0	52.0	56.0	53.0	36.0
Minerals, per kg dry matter									
Calcium, g	4.6	3.5	4.1	3.6	2.9	13.5		3.4	3.4
Phosphorus, g	0.9	0.8	1.4	0.9	1.0	2.0		1.1	1.1
Magnesium, g	0.9	0.9	1.1	0.9	1.0	2.4		0.8	0.8
Potassium, g	20.0	17.0	21.0	15.0	10.0	7.5		15.0	15.0
Sodium, g	1.4	3.7	2.3	0.1	1.5	1.7		0.8	0.8
Chloride, g	17.0			9.5				3.2	3.2
Sulfur, g	1.1			0.9				0.8	0.8
CAB, meq (cat-anion-balance)	25			64				278	278
Iron, mg	470	470	187	291	166				
Manganese, mg	30	83	83	35	74			60	60
Zink, mg	147	43	81	46	19			70	70
Copper, mg	3	6	7	3	4			5	5
Cobalt, mg	0.19	0.19	0.06	0.06	0.05			0.05	0.05
Selenium, mg	0.05	0.05							
Vitamins, per kg dry matter									
Vit-A, 1000 i.e.									
Beta-caroten, mg									
Vit-D, 1000 i.e.									
Vit-E, mg									
Structure/fill, per kg dry mat.									
Chewing time, minutes	135	135	124	136	132	123	102	99	129
FFk, fill cows	0.85	0.85	0.90	0.90	1.00	0.70	0.65	0.65	1.00
FFu, fill young stock	1.58	1.60	1.60	1.59	1.66	1.48	1.37	1.41	1.75
Energy									
Dig. energy, MJ per kg dry matter	7.6	7.5	7.3	7.5	6.8	8.4	9.5	8.9	6.0
SFU per kg dry matter	0.23	0.21	0.21	0.22	0.16	0.32	0.46	0.40	0.08
Content per SFU									
Kg dry matter	4.38	4.72	4.69	4.60	6.43	3.09	2.19	2.51	12.79
Kg feed	5.16	5.56	5.51	5.41	7.57	3.55	2.58	2.95	15.05
Digestible crude protein, g	32	34	21	3	34	114	230	76	68
AAT, g	193	203	199	204	254	140	93	124	454
PBV, g	-219	-228	-231	-252	-281	-101	35	-111	-472
Fatty acids, g	21	22	23	22	31	12	8	9	45
Sugar, g	0	0	0	0	0	0	99	113	576
Starch, g	0	0	0	0	0	0	0	0	0
Digestible cell wall carbohydr., g	1816	1912	1875	1919	2393	1315	773	1056	3701
FFk, fill cows	3.73	4.01	4.22	4.14	6.43	2.16	1.43	1.63	12.79
FFu, fill young stock	6.93	7.54	7.48	7.32	10.68	4.58	3.00	3.54	22.40
Chewing time, minutes	592	638	581	625	849	380	224	248	1650

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Appendix

Basis of analysed and calculated values

Concentrates and cereals

Compared to the last edition of the Feed Table (report no. 69) this edition contains updated analyses of the most frequently used commercial feeds. The new values are based on analyses of feeds which in connection with projects conducted at The Danish Agricultural Advisory Centre have been analysed for nutrient contents and minerals at Steins Laboratorium A/S and for protein degradability at The Danish Institute of Agricultural Sciences.

The database at the Danish Plant Directorate has provided data for feed and mineral content. The data on cereals and peas are based on samples collected by The National Committee on Pig Production in the harvest years 1997-1999. The concentrate mixtures mentioned in the first part of the Table have not changed relative to report no. 69.

For the concentrate feedstuffs, fatty acid in percentage of crude fat has been changed so that the content is lower for extracted meals compared to cakes and oil seeds.

By-products

The analytical values for by-products originate to some extent from samples analysed at Steins Laboratorium A/S whereas other values originate from experiments or special studies involving by-products.

Roughages

The analytical values for the roughages mainly originate from roughage samples from the harvest years 1995-1999, analysed at Steins Laboratorium A/S. These samples have been subdivided into a number of quantiles depending on DOM. If, for instance, a roughage has three feedstuffs codes, the samples are divided into three quantiles so that the codes 582, 583 and 584 are the averages of the highest, the medium and the lowest third of the samples, respectively, regarding DOM.

The energy value of straw is calculated by means of the general formula for energy calculation which constitutes a change compared to report no. 69. This change means that the energy value of straw with a low digestibility has been reduced considerably compared to earlier, whereas the energy value of straw with a high digestibility, for instance ammonia treated straw, has increased marginally.

The definitions of the individual grass codes for grazing are stated in the table below. The clover grass codes 421-429 are subdivided with respect to sward height and percentage of clover and show a seasonal average. The clover grass codes 431-442 are subdivided with respect to sward height, irrigation facilities and time of the season. A certain average percentage of clover is assumed for each period (25%, 30% and 35% clover). The grass codes 464-466 are subdivided with respect to sward height and are seasonal averages.

The analytical values for grass mainly originate from grazing studies conducted by The Danish Institute of Agricultural Sciences and The Danish Agricultural Advisory Centre on the so-called project farms or other selected dairy farms.

Protein degradability and true intestinal digestibility of original feed protein in grass for grazing are calculated on the basis of DOM. This is a change compared to the former version where standard values were used.

Definition of grass codes for grazing

Feed code	Sward height cm	Clover %	Irrigation	Period
421	6-8	20	Yes	whole season
422	12-15	20	Yes	whole season
423	20-25	20	Yes	whole season
424	6-8	40	Yes	whole season
425	12-15	40	Yes	whole season
426	20-25	40	Yes	whole season
427	6-8	60	Yes	whole season
428	12-15	60	Yes	whole season
429	20-25	60	Yes	whole season
431	6-8	25	Yes	< 1 June
432	6-8	30	Yes	1 June - 15 Aug
433	6-8	35	Yes	> 15 Aug
434	6-8	25	No	< 1 June
435	6-8	30	No	1 June - 15 Aug
436	6-8	35	No	> 15 Aug
437	12-15	25	Yes	< 1 June
438	12-15	30	Yes	1 June - 15 Aug
439	12-15	35	Yes	> 15 Aug
440	12-15	25	No	< 1 June
441	12-15	30	No	1 June - 15 Aug
442	12-15	35	No	> 15 Aug
458		0	No	whole season
464	6-8	0	Yes	whole season
465	12-15	0	Yes	whole season
466	20-25	0	Yes	whole season

Alphabetical index and danish translation

Feedstuff	Fodermiddel	Code	Page
Barley + pea silage, dough	Bygært, ensilage	596-600	39
Barley sharps	Bygskalmel	224	18
Barley silage, boot stage	Grønbyg ensilage	581	37
Barley straw, ammonia treated	Byghalm, NH3 behandlet	682-683	42
Barley straw, sodium hydroxid treated	Byghalm, NaOH behandlet	681	42
Barley straw, spring	Byghalm, vår	781	43
Barley straw, winter	Byghalm, vinter	782	43
Barley whole crop silage, dough	Byghelsæd, ensilage	582-584	37
Barley whole crop, dough	Byghelsæd, frisk	483	33
Barley, decorticated	Byg, afskallet	221	18
Beet pulp	Roeaffald, frisk	282	22
Beet pulp, dried	Roepiller, umelasseret	283	22
Beet pulp, dried, molassed	Roepiller, melasseret	286	22
Beet pulp, ensiled	Roeaffald, ensileret	285	22
Beet pulp, pressed, ensiled, 5% molasses	Roeaffald, hp, ensil., 5% melasse	284	22
Beet top, fresh, 20% ash	Roetop, frisk, 20% aske	353	26
Beet top, silage, 20% ash	Roetop, ensilage, 20% aske	356	26
Blood meal	Blodmel	324	25
Brewer's grain, dried	Mask, tørret	267	21
Brewer's grain, fresh	Mask, frisk	266	21
Brewer's yeast	Gærfløde	297	23
Calcium soaps	Forsæbet fedt	348	25
Carrots	Gulerødder	391	27
Cassava flour	Tapiokamel	295	20
Cellulose pulp	Cellulosepulp	292	23
Citrus pulp, dried	Citruskvas	291	23
Clover hay	Kløverhø	625-626	40
Clovergrass	Kløvergræs	421-442	28-30
Clovergrass silage	Kløvergræsenssilage	521-529	34
Cocksfoot, silage	Hunde græs, ensilage	555	35
Coconut cake	Kokoskage	131	13
Coconut cake, rich in fat	Kokoskage, fedtrig	139	14
Coconut meal	Kokoskrå	134	13
Condensed molasses, solubles	Vinasse	287	22
Cottonseed cake	Bomuldsfrøkager	101	13
Cottonseed meal	Bomuldsfrøskrå	105	13
Distillers grain, maize based	Majsbærme	263	21
Distillers grains, barley based, dried	Kornbærme, tørret	262	21
Distillers grains, barley based, fresh	Kornbærme, frisk	261	21
Ensiled beets + straw	Roer + halm, ensilage	390	27
Ensiled beets + top + beet pulp, dried	Roer + top + roepiller, ensilage	385	27
Ensiled top + barley whole crop	Helsæd + top, ensilage	368	27
Ensiled top + beet pulp, dried	Top + roepiller, ensilage	365	27
Ensiled top + straw	Top + halm, ensilage	366	27
Ensiled top + straw + beet pulp, dried	Top + halm + roepiller, ensilage	367	27
Fat products	Fedtprodukter	345-348	25
Fermented colostrum	Syrnet råmælk	310	24
Field beans	Hestebønner	211	17
Field beans, whole crop	Hestebønner, frisk	476	32
Field beans, whole crop silage	Hestebønne, ensilage	576	36
Fish meal, standard	Fiskemel, standard	908	25
Fish meal, low EPD	Fiskemel, tungtopl.	909	25
Fish silage	Fiskeensilage	911	25
Fodder beets	Fodderroer	388,351,386	26
Fodder galega	Galega	471	32
Fodder galega, silage	Galega, ensilage	571	36
Fodder salt	Fodersalt	740	46
Fodder urea	Foderurea	760	46
Grass	Græs	464-466	31
Grass hay	Græshø	665	40
Grass hay, art. dried	Grønhø	671-673	40
Grass pellets	Grønpiller	705-707	41
Grass silage	Græsensilage	564-570	35

Green barley, boot	Grønbyg før skrid.	481	33
Groundnut meal, partly decorticated	Jordnødskrå, delvist afskallet	125	13
Guar meal	Guarmel	258	20
Ital. ryegrass after cereal crop, silage	Efterafgrøde, helsæd, ensilage	548-549	35
Italian ryegrass, after whole crop	Italiensk rajgræs, efter helsæd	448-449	31
Italian ryegrass, spring	Italiensk rajgræs, forår	444-446	31
Limestone	Kridt	720	46
Linseed	Hørfrø	212	17
Linseed cake	Hørfrokage	111	13
Linseed meal	Hørfroskrå	114	13
Liquid minerals	Flydende mineral	750	45
Lucerne	Lucerne	401-403	28
Lucerne hay, art. dried	Grønhø, lucerne	675	40
Lucerne hay, full bloom	Lucernehø	602	40
Lucerne pellets	Lucernepilller	708-709	41
Lucerne silage	Lucerneensilage	501-502	33
Magnesiumoxide	Magnesiumoxyd	730	46
Magnesiumphosphate	Magnesiumfosfat	731	46
Maize	Majs	204	16
Maize bran	Majsklid	245	19
Maize feed meal	Majsfodermel	241	19
Maize flour	Majsmel	246	19
Maize forage	Majs, frisk	492	33
Maize germ	Majskim	244	19
Maize gluten	Majsgluten	243	19
Maize gluten feed	Majsglutenfoder	242	19
Maize silage	Majsensilage	592-594	38
Maize starch	Majsstivelse	247	19
Malt sprouts	Maltspirer	265	21
Marrow stem kale	Fodermarvkål	475	32
Marrowstem kale, silage	Fodermarvkål, ensilage	575	36
Milk replacer	Komælkserstatning	311	24
Mineral mixtures	Mineralblandinger	721-738	44-45
Mineral salts	Mineralsalte	720-760	46
Molasses, beet	Roemelasse	277	21
Molasses, cane	Rørmelasse	278	21
Monoammonium phosphate	Monoammoniumfosfat	724	46
Mustard meal	Sennepsskrå	148	14
Oat hulls	Havreskalmel	228	18
Oat middlings	Havrefodermel	227	18
Oat straw	Havrehalm	785	43
Oat straw, ammonia treated	Havrehalm, NH3 beh.	686	42
Oats	Havre	202	16
Oats + peas + vetches, silage	Havre + ærte + vikke, ensilage	580	36
Oats whole crop silage, dough	Havrehelsæd, ensilage	586	37
Oats, decorticated	Havre, afskallet	225	18
Oats, peas, vetches, whole crop	Havre, ærter, vikker	480	32
Oats, whole crop, boot	Havrehelsæd, frisk	486	33
Palmkernel cake	Palmekage	136	14
Pea straw	Ærtehalm	799	43
Peas	Ærter	216	17
Peas, whole crop silage, boot	Grønært, ensilage	578	39
Peas, whole crop silage, dough	Ærtehelsæd, ensilage	599	39
Peas, whole crop, dough	Ærtehelsæd, frisk	499	33
Pectin residues	Pektinaffald	294	23
Perennial ryegrass straw	Rajgræshalm	716	43
Permanent meadow grass	Varigt enggræs	458	31
Permanent meadow grass, silage	Varigt enggræs, ensilage	558	35
Potato pulp	Kartoffelpulp	273	21
Potatoes	Kartofler	395	27
Prolasse	Prolasse	288	22
Rapeseed cake, 00	Rapskage, 00	144-147	14
Rapeseed meal, 00, 4% fat	Rapsskrå, 00, 4% fedt	142	14
Rapeseed, 00	Rapsfrø, 00	213	17
Red clover, early bloom	Rødkløver, beg. blomst	473	32
Red clover, early bloom, silage	Rødkløver beg. blomst, ensilage	573	36

Red fescue straw	Rødsvingelhalv	717	43
Rice	Ris	206	16
Rice feed meal	Risfodermel	253	19
Rice, decorticated	Ris, afskallet	251	19
Root + top (fodder beets)	Rod + top	387	26
Rye	Rug	207	16
Rye bran	Rugklid	256	20
Rye middlings	Rugstrømel	257	20
Rye straw	Rughalm	796	43
Rye straw, ammonia treated	Rughalm, NH3 beh.	697	42
Rye, whole crop silage, boot	Grønrug, ensilage	597	39
Rye, whole crop, boot	Grønrug, frisk	497	33
Saturated fat	Mættet fedt	345	25
Sesame cake	Sesamkage	173	15
Sesame meal	Sesamskrå	174	15
Skim milk	Skummetmælk	317	24
Skim milk powder	Skummetmælkspulver	307	24
Sodium bicarbonate	Natriumbikarbonat	741	46
Sodium hydroxide	Natriumhydroxyd	742	46
Sodium sulphate	Glauber salt, (Natriumsulfat)	743	46
Sorghum	Milo	205	16
Soya bean cake	Sojakage	151	14
Soya bean hulls	Sojaskaller	290	20
Soya bean meal	Sojaskrå	155	15
Soya bean meal, decorticated	Sojaskrå, afskallet	154	15
Soya beans	Sojabønner	214	17
Spring barley	Byg, vår	201	16
Spring sown Italian ryegrass, silage	Forårsudl. Ital. rajgræs, ensilage	546	35
Sugar beet, sliced, dried	Sukkerroesnitler	289	22
Sugar beets	Sukkerroer	361	26
Sunflower cake	Solsikkekage	161-162	15
Sunflower meal	Solsikkekrå	164-165	15
Sunflower seeds	Solsikkefrø	217	17
Swedes	Kålroer	371	26
Swedes, top	Kålroetop	373	27
Sweet lupin	Sød lupin	215	17
Sweet lupin whole crop, silage	Sød lupin, ensilage	579	36
Sweet lupin, whole crop	Sød lupin, frisk	479	32
Sweet potatoes	Batatsnitler	296	20
Triticale	Triticale	209	16
Triticale, whole crop silage, dough	Triticale helsæd, ensilage	595	39
Turnips	Turnips	381	26
Vegetable fat	Vegetabilsk fedt	347	25
Vitamin preparations	Vitaminpræparater	770-777	47
Wheat	Hvede	203	16
Wheat + grass, whole crop silage	Hvede + græs, ensilage	587	38
Wheat + pea, whole crop silage	Hvedeært, ensilage	588	38
Wheat bran	Hvedeklid	232	18
Wheat flour	Hvedemel	231	18
Wheat germ	Hvedekim	235	18
Wheat middlings	Hvedestrømel	233	18
Wheat straw	Hvedehalm	788	43
Wheat straw, ammonia treated	Hvedehalm, NH3 beh.	689	42
Wheat, whole crop silage, dough	Hvedehelsæd, ensilage	589-591	38
Whey	Valle	312	24
Whey permeat	Vallepermeat	315	24
Whey powder	Vallepulver	314	24
White clover straw	Hvidkløverhalm	715	43
White clover, early bloom	Hvidkløver, beg. blomst	472	32
White clover, early bloom, silage	Hvidkløver beg. blomst, ensilage	572	36
Whole milk, Jersey	Sødmælk, jersey	309	24
Whole milk, large breed	Sødmælk, stor race	308	24
Winter barley	Byg, vinter	200	16
Winter barley, whole crop silage, dough	Byghelsæd, ensilage, (vinterbyg)	585	37
Wood pulp	Bøgegranulat	298	23

Alfabetisk indeks og engelsk oversættelse

Fodermiddel	Feedstuff	Kode	Side
Batatsnitter	Sweet potatoes	296	20
Blodmel	Blood meal	324	25
Bomuldsfrøkager	Cottonseed cake	101	13
Bomuldsfrøskrå	Cottonseed meal	105	13
Byg, afskallet	Barley, decorticated	221	18
Byg, vinter	Winter barley	200	16
Byg, vår	Spring barley	201	16
Byghalm, NaOH behandlet	Barley straw, sodium hydroxid treated	681	42
Byghalm, NH3 behandlet	Barley straw, ammonia treated	682-683	42
Byghalm, vinter	Barley straw, winter	782	43
Byghalm, vår	Barley straw, spring	781	43
Byghelsæd, frisk	Barley whole crop, dough	483	33
Byghelsæd, ensilage	Barley whole crop silage, dough	582-584	37
Byghelsæd, ensilage , (vinterbyg)	Winter barley, whole crop silage, dough	585	37
Bygskalmel	Barley sharps	224	18
Bygært, ensilage	Barley + pea silage, dough	596-600	39
Bøgegranulat	Wood pulp	298	23
Cellulosepulp	Cellulose pulp	292	23
Citruskvas	Citrus pulp, dried	291	23
Efterafgrøde, helsæd, ensilage	Ital. ryegrass after cereal crop, silage	548-549	35
Fedtprodukter	Fat products	345-348	25
Fiskeensilage	Fish silage	911	25
Fiskemel, standard	Fish meal, standard	908	25
Fiskemel, tungtopl.	Fish meal, low EPD	909	25
Flydende mineral	Liquid minerals	750	45
Foderurea	Fodder urea	760	46
Fodermarkål	Marrow stem kale	475	32
Fodermarkål, ensilage	Marrowstem kale, silage	575	36
Fodderroer	Fodder beets	388,351,386	26
Fodersalt	Fodder salt	740	46
Forsæbet fedt	Calcium soaps	348	25
Forårsudl. Ital. rajgræs, ensilage	Spring sown Italian ryegrass, silage	546	35
Galega	Fodder galega	471	32
Galega, ensilage	Fodder galega, silage	571	36
Glauber salt, (Natriumsulfat)	Sodium sulphate	743	46
Græs	Grass	464-466	31
Græsensilage	Grass silage	564-570	35
Græshø	Grass hay	665	40
Grønbyg ensilage	Barley silage, boot stage	581	37
Grønbyg før skrid.	Green barley, boot	481	33
Grønhø	Grass hay, art. dried	671-673	40
Grønhø, lucerne	Lucerne hay, art. dried	675	40
Grønpiller	Grass pellets	705-707	41
Grønrug, ensilage	Rye, whole crop silage, boot	597	39
Grønrug, frisk	Rye, whole crop, boot	497	33
Grønært, ensilage	Peas, whole crop silage, boot	578	39
Guarmel	Guar meal	258	20
Gulerødder	Carrots	391	27
Gærfløde	Brewer's yeast	297	23
Havre	Oats	202	16
Havre + ærte + vikke, ensilage	Oats + peas + vetches, silage	580	36
Havrefodermel	Oat middlings	227	18
Havrehalm, NH3 beh.	Oat straw, ammonia treated	686	42
Havrehelsæd, ensilage	Oats whole crop silage, dough	586	37
Havrehelsæd, frisk	Oats, whole crop, boot	486	33
Havreskalmel	Oat hulls	228	18
Havre, afskallet	Oats, decorticated	225	18
Havre, ærter, vikker	Oats, peas, vetches, whole crop	480	32
Havrehalm	Oat straw	785	43
Helsæd + top, ensilage	Ensiled top + barley whole crop	368	27
Hestebønne, ensilage	Field beans, whole crop silage	576	36
Hestebønner	Field beans	211	17
Hestebønner, frisk	Field beans, whole crop	476	32

Hunde græs, ensilage	Cocksfoot, silage	555	35
Hvede	Wheat	203	16
Hvede + græs, ensilage	Wheat + grass, whole crop silage	587	38
Hvedehalm	Wheat straw	788	43
Hvedehalm, NH3 beh.	Wheat straw, ammonia treated	689	42
Hvedehelsæd, ensilage	Wheat, whole crop silage, dough	589-591	38
Hvedekim	Wheat germ	235	18
Hvedeklid	Wheat bran	232	18
Hvedemel	Wheat flour	231	18
Hvedestrømel	Wheat middlings	233	18
Hvedært, ensilage	Wheat + pea, whole crop silage	588	38
Hvidkløver beg. blomst, ensilage	White clover, early bloom, silage	572	36
Hvidkløver, beg. blomst	White clover, early bloom	472	32
Hvidkløverhalm	White clover straw	715	43
Hørfrø	Linseed	212	17
Hørfrøkage	Linseed cake	111	13
Hørfrøskrå	Linseed meal	114	13
Italiensk rajgræs, efter helsæd	Italian ryegrass, after whole crop	448-449	31
Italiensk rajgræs, forår	Italian ryegrass, spring	444-446	31
Jordnødskrå, delvist afskallet	Groundnut meal, partly decorticated	125	13
Kartoffelpulp	Potato pulp	273	21
Kartofler	Potatoes	395	27
Kløvergræs	Clovergrass	421-442	28-30
Kløvergræsenssilage	Clovergrass silage	521-529	34
Kløverhø	Clover hay	625-626	40
Kokoskage	Coconut cake	131	13
Kokoskage, fedtrig	Coconut cake, rich in fat	139	14
Kokoskrå	Coconut meal	134	13
Komælkserstatning	Milk replacer	311	24
Kornbærme, frisk	Distillers grains, barley based, fresh	261	21
Kornbærme, tørret	Distillers grains, barley based, dried	262	21
Kridt	Limestone	720	46
Kålroer	Swedes	371	26
Kålroetop	Swedes, top	373	27
Lucerne	Lucerne	401-403	28
Lucerneensilage	Lucerne silage	501-502	33
Lucernehø	Lucerne hay, full bloom	602	40
Lucernepiller	Lucerne pellets	708-709	41
Magnesiumfosfat	Magnesiumphosphate	731	46
Magnesiumoxyd	Magnesiumoxide	730	46
Majs	Maize	204	16
Majs, frisk	Maize forage	492	33
Majsbærme	Distillers grain, maize based	263	21
Majsensilage	Maize silage	592-594	38
Majsfodermel	Maize feed meal	241	19
Majs gluten	Maize gluten	243	19
Majs glutenfoder	Maize gluten feed	242	19
Majskim	Maize germ	244	19
Majsklid	Maize bran	245	19
Majsmel	Maize flour	246	19
Majsstivelse	Maize starch	247	19
Maltspirer	Malt sprouts	265	21
Mask, frisk	Brewer's grain, fresh	266	21
Mask, tørret	Brewer's grain, dried	267	21
Milo	Sorghum	205	16
Mineralblandinger	Mineral mixtures	721-738	44-45
Mineralsalte	Mineral salts	720-760	46
Monoammoniumfosfat	Monoammonium phosphate	724	46
Mættet fedt	Saturated fat	345	25
Natriumbikarbonat	Sodium bicarbonate	741	46
Natriumhydroxyd	Sodium hydroxide	742	46
Palmekage	Palmkernel cake	136	14
Pektinaffald	Pectin residues	294	23
Prolasse	Prolasse	288	22
Rajgræshalm	Perennial ryegrass straw	716	43
Rapsfrø, 00	Rapeseed, 00	213	17

Rapskage, 00	Rapeseed cake, 00	144-147	14
Rapsskrå, 00, 4% fedt	Rapeseed meal, 00, 4% fat	142	14
Ris	Rice	206	16
Ris, afskallet	Rice, decorticated	251	19
Risfodermel	Rice feed meal	253	19
Rod + top	Root + top (fodder beets)	387	26
Roeaffald, ensileret	Beet pulp, ensiled	285	22
Roeaffald, frisk	Beet pulp	282	22
Roeaffald, hp, ensil., 5% melasse	Beet pulp, pressed, ensiled, 5% molasses	284	22
Roemelasse	Molasses, beet	277	21
Roepiller, melasseret	Beet pulp, dried, molassed	286	22
Roepiller, umelasseret	Beet pulp, dried	283	22
Roer + halm, ensilage	Ensiled beets + straw	390	27
Roer + top + roepiller, ensilage	Ensiled beets + top + beet pulp, dried	385	27
Roetop, ensilage, 20% aske	Beet top, silage, 20% ash	356	26
Roetop, frisk, 20% aske	Beet top, fresh, 20% ash	353	26
Rug	Rye	207	16
Rughalm	Rye straw	796	43
Rughalm, NH3 beh.	Rye straw, ammonia treated	697	42
Rugklid	Rye bran	256	20
Rugstrømel	Rye middlings	257	20
Rødkløver beg. blomst, ensilage	Red clover, early bloom, silage	573	36
Rødkløver, beg. blomst	Red clover, early bloom	473	32
Rødsvingelhalm	Red fescue straw	717	43
Rørmelasse	Molasses, cane	278	21
Sennepsskrå	Mustard meal	148	14
Sesamkage	Sesame cake	173	15
Sesamskrå	Sesame meal	174	15
Skummetmælk	Skim milk	317	24
Skummetmælkspulver	Skim milk powder	307	24
Sojabønner	Soya beans	214	17
Sojakage	Soya bean cake	151	14
Sojaskaller	Soya bean hulls	290	20
Sojaskrå	Soya bean meal	155	15
Sojaskrå, afskallet	Soya bean meal, decorticated	154	15
Solsikkefrø	Sunflower seeds	217	17
Solsikkekage	Sunflower cake	161-162	15
Solsikkeskrå	Sunflower meal	164-165	15
Sukkerroer	Sugar beets	361	26
Sukkerroesnitte	Sugar beet, sliced, dried	289	22
Syrnet råmælk	Fermented colostrum	310	24
Sød lupin	Sweet lupin	215	17
Sød lupin, frisk	Sweet lupin, whole crop	479	32
Sød lupin, ensilage	Sweet lupin whole crop, silage	579	36
Sødmælk, jersey	Whole milk, Jersey	309	24
Sødmælk, stor race	Whole milk, large breed	308	24
Tapiokamel	Cassava flour	295	20
Top + halm + roepiller, ensilage	Ensiled top + straw + beet pulp, dried	367	27
Top + halm, ensilage	Ensiled top + straw	366	27
Top + roepiller, ensilage	Ensiled top + beet pulp, dried	365	27
Triticale	Triticale	209	16
Triticale helsæd, ensilage	Triticale, whole crop silage, dough	595	39
Turnips	Turnips	381	26
Valle	Whey	312	24
Vallepermeat	Whey permeat	315	24
Vallepulver	Whey powder	314	24
Varigt enggræs	Permanent meadow grass	458	31
Varigt enggræs, ensilage	Permanent meadow grass, silage	558	35
Vegetabilisk fedt	Vegetable fat	347	25
Vinasse	Condensed molasses, solubles	287	22
Vitaminpræparater	Vitamin preparations	770-777	47
Ærtehalm	Pea straw	799	43
Ærtehelsæd, ensilage	Peas, whole crop silage, dough	599	39
Ærtehelsæd, frisk	Peas, whole crop, dough	499	33
Ærter	Peas	216	17