

**Composition And Qualities Of Apple Pomace****Table 1: Chemical composition and estimated feed value of fresh apple pomace**

<b>Nutrient</b>	<b>Fresh apple pomace</b>
Dry matter %	15.8 – 20.9
pH	3.2 – 3.7
<b>In the dry matter %</b>	
Crude protein	6.4 – 8.6
Crude fibre	20.5 – 22.1
Ether extract	2.3 – 3.4
Total ash	1.6 – 2.7
Nitrogen free extract	53.2 – 59.2
In Vitro DOMD	65.0 – 69.0
Ruminated ME MJ/kgDM	10.1 – 10.7

DMOD = Digestible organic matter in dry matter

Source: ADAS Feed Evaluation Unit, Drayton

**Table 2: Dry matter%, metabolisable energy and digestible crude protein of commonly used ruminant feedstuffs**

<b>Feeding stuff</b>	<b>Dry matter%</b>	<b>Metabolisable energy MJ/kgDM</b>	<b>Digestible crude protein g/kgDM</b>
Grass silage; Good	25	10.2	120
Grass silage; Poor	20	7.6	100
Maize silage	21	10.8	70
Brewer's Grain; Fresh	22	10.0	150
Brewer's grain; Ensiled	28	10.0	150
Pressed sugar beet pulp	22	12.3	61
Hay; Good	85	10.1	90
Hay; Poor	85	7.5	50
Nutritionally improved straw	90	9.0	8
Dried molassed beet pulp	90	12.5	80
Barley	86	12.9	82
Soya bean meal	90	12.3	453
Dried grassnuts	90	10.6	140
Fresh apple pomace	28	10.2	N/A
Dried apple pomace	93	10.8	8

Source: British Sugar plc

**Table 3: Chemical analysis of dried apple pomace**

<b>Nutrient</b>	<b>Bulmers pomace</b>	<b>Austrian pomace</b>	<b>French pomace</b>	<b>Mean</b>
Moisture %	6.4	9.8	5.5	7.2

**In the Dry matter %**

<b>Nutrient</b>	<b>Bulmers pomace</b>	<b>Austrian pomace</b>	<b>French pomace</b>	<b>Mean</b>
Crude protein	5.4	5.2	4.9	5.2
Crude fibre	19.9	18.9	20.5	19.8
Ether extract	2.0	1.6	2.1	1.9
Total ash	1.54	1.41	1.71	1.55
Insoluble ash	1.34	13.1	1.57	1.41
Soluble ash	0.20	0.10	0.14	0.15
Nitrogen free extract	61.2	62.9	60.8	61.6
Total sweetening matter	13.1	21.3	19.3	17.9
Acid detergent fibre	33.5	30.8	33.2	32.5
Neutral detergent fibre	43.7	50.2	44.4	46.1
Predictable metabolisable Energy MJ/kgDM	10.8	10.9	10.8	10.8

Source: British Sugar plc

**Table 4: Mineral composition of dried apple pomace**

<b>Mineral</b>	<b>Bulmers pomace</b>	<b>Austrian pomace</b>	<b>French pomace</b>
Total ash %	1.54	1.71	1.41
<b>Mineral component of Ash %</b>			
Calcium	0.12	0.08	0.12
Phosphorus	0.11	0.12	0.11
Sodium	0.02	0.02	0.03
Magnesium	0.06	0.04	0.06
Potassium	0.36	0.37	0.46
<b>Trace minerals mg/kgDM</b>			
Arsenic	<0.01	<0.1	<0.1
Lead	0.4	1.0	0.5
Copper	3.8	2.8	3.8
Iron	138	67	99
Fluorine	2	4	4
Sulphur dioxide	20	Nil	14

Source: British Sugar plc

**Table 5: Semi In Vivo digestibility of dried apple pomace**

Digestibility %	Bulmers pomace	Austrian pomace	French pomace
<b>Organic matter</b>			
After 4 hours	21	38	32
After 8 hours	31	37	41
After 12 hours	41	44	36
After 24 hours	58	44	62
<b>Crude protein</b>			
After 4 hours	9	10	9
After 8 hours	13	14	3
After 12 hours	15	9	5
After 24 hours	14	7	19
Estimated DOMD%	56.8	43.4	60.9
Estimated DCP g/kgDM	8.1	7.3	9.3

DOMD = Digestible organic matter in dry matter

DCP = Digestible crude protein

**Table 6: Comparative projected market values of feeds**

Feed	Metabolizable energy [MJ/kgDM]	Digestible crude protein [g/kgDM]	Market value [£/tonne 198?]
Barley	12.9	82	120.00
Soya bean meal	12.3	453	200.00
Dried pomace	10.8	8	86.62*
French pomace	10.2	75	21.38*

\* Calculated values – on merchant's premises 198?

Source: Table 2