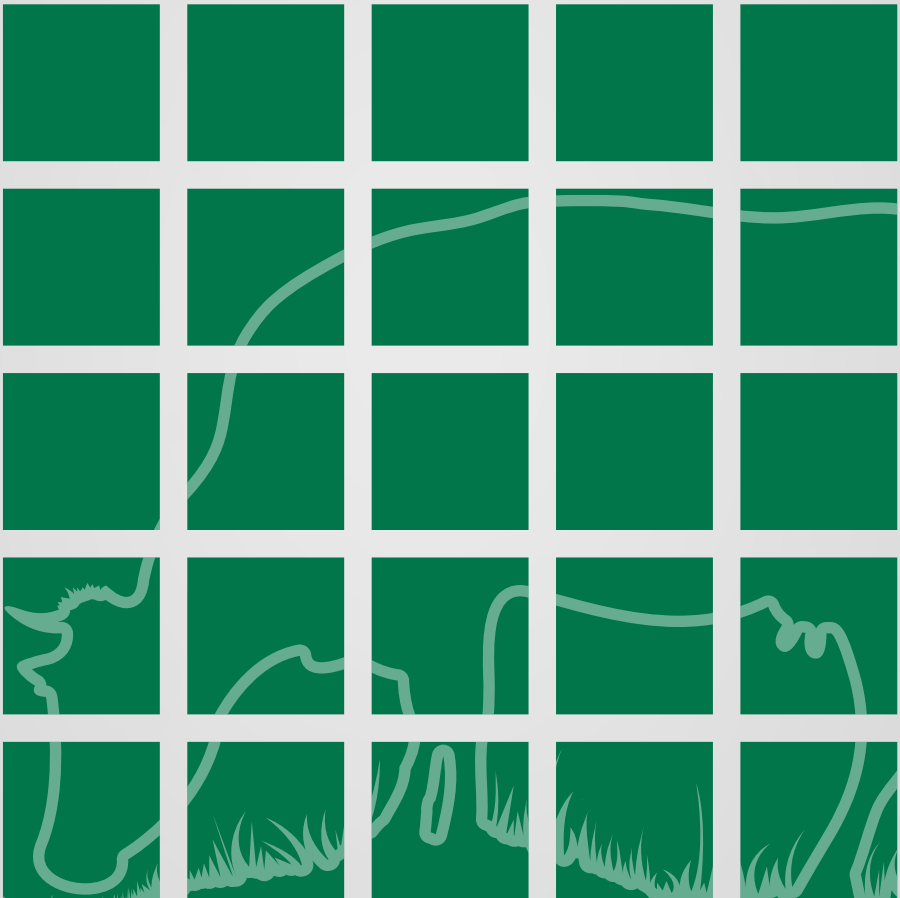
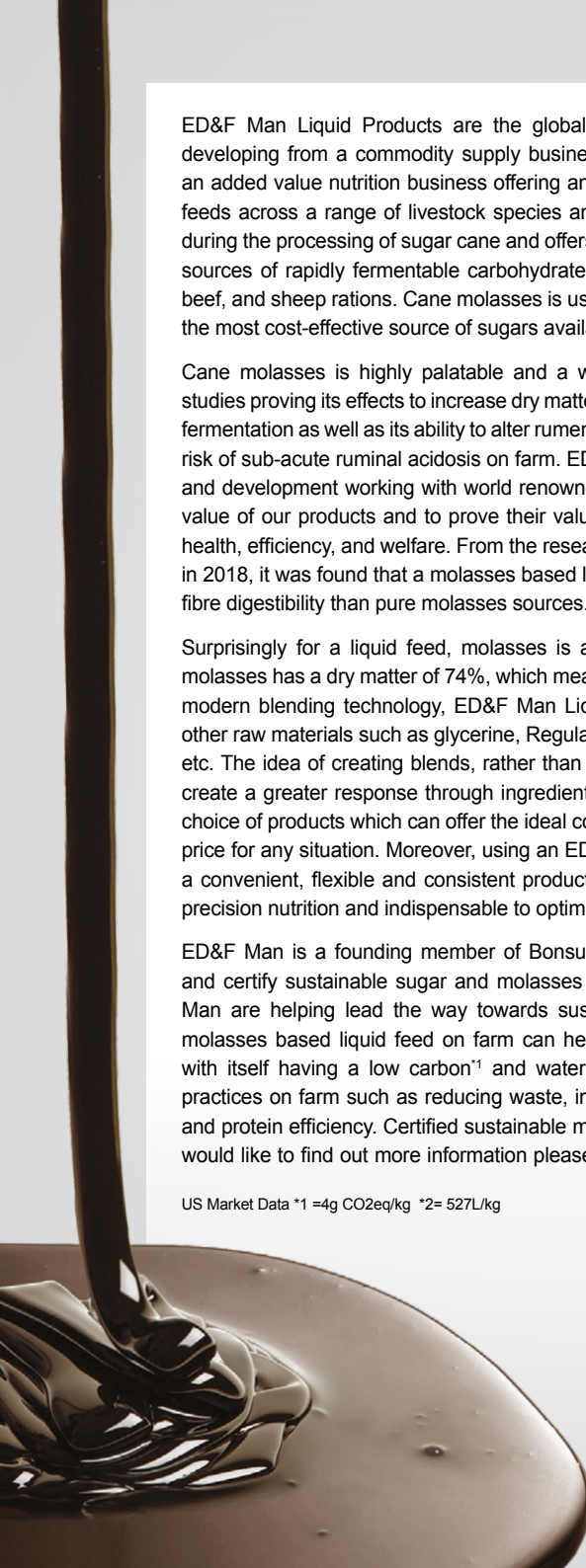


Product Technical Information





ED&F Man Liquid Products are the global leaders in molasses based liquid feeds developing from a commodity supply business with one product to offer, molasses, to an added value nutrition business offering an extensive range of molasses based liquid feeds across a range of livestock species and feeding systems. Molasses is produced during the processing of sugar cane and offers one of the most economical and palatable sources of rapidly fermentable carbohydrates, making it a valuable ingredient in dairy, beef, and sheep rations. Cane molasses is used as the base to all our liquid feeds as it is the most cost-effective source of sugars available on farm.

Cane molasses is highly palatable and a well-researched feed material with various studies proving its effects to increase dry matter intake, improve fibre digestion and rumen fermentation as well as its ability to alter rumen pH to a more ideal level helping reduce the risk of sub-acute ruminal acidosis on farm. ED&F Man have invested heavily in research and development working with world renowned animal scientists to highlight the unique value of our products and to prove their value and effectiveness at improving livestock health, efficiency, and welfare. From the research conducted at the University of Bologna in 2018, it was found that a molasses based liquid feed had almost 10% more impact on fibre digestibility than pure molasses sources.

Surprisingly for a liquid feed, molasses is also high in dry matter, as standard cane molasses has a dry matter of 74%, which means it offers excellent nutrient density. Using modern blending technology, ED&F Man Liquid Products can combine molasses with other raw materials such as glycerine, Regulated Release protein, vitamins and minerals etc. The idea of creating blends, rather than working with individual raw materials, is to create a greater response through ingredient interaction. This allows customers a wide choice of products which can offer the ideal combination of energy, protein, viscosity, and price for any situation. Moreover, using an ED&F Man molasses based liquid feed offers a convenient, flexible and consistent product on farm which is fundamental to achieve precision nutrition and indispensable to optimising cost effective production.

ED&F Man is a founding member of Bonsucro, the body formed to develop, support, and certify sustainable sugar and molasses production. Under this certification, ED&F Man are helping lead the way towards sustainable animal feed production. Using a molasses based liquid feed on farm can help promote sustainable animal production, with itself having a low carbon¹ and water footprint², and by promoting sustainable practices on farm such as reducing waste, improving utilisation of home-grown forages and protein efficiency. Certified sustainable molasses can now be offered on farm, if you would like to find out more information please speak to your local commercial manager.

US Market Data *1 =4g CO2eq/kg *2= 527L/kg



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Economol - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Economol is a high dry matter liquid with a high nutritive value. It has a lower viscosity than standard molasses benefiting from easier handling on farm with maximum flowability.

Economol is suitable for feeding in mixer wagons, forage boxes or poured over forage.

Benefits include:

- The most cost-effective source of sugars on farm
- Improve palatability to drive dry matter intake
- Stimulate rumen function and microbial protein production
- High in dry matter to help bind feed, reducing sorting and dust

Typical Feed Rates

	Dairy	Beef	Youngstock	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 - 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	71
Total Sugars (%)	64	45.4
Crude Protein (%)	6.5	4.6
ME (MJ/kg)	12.7	9.0
Oil (%)	0.3	0.2
Ash (%)	12.5	8.9
Sodium (%)	2.3	1.6
Crude Fibre (%)	0	0
DCAB (mEq/100g)	34.99	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Economol is available in bulk from 5-29t or as mini bulk from 1-4T.

Typical specific gravity of 1.42kg/L or density of 724L/T.

Stockmol 20 - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Stockmol 20 is a high dry matter liquid with a high nutritive value. It has a lower viscosity than standard molasses benefiting from easier handling on farm with maximum flowability. The lower viscosity also allows for the thorough absorption to promote dry matter intakes of all forages and mixed rations.

Stockmol 20 is suitable for feeding in mixer wagons, forage boxes or poured over forage.

Benefits include:

- High nutrient density providing a rich source of sugars, protein and organic matter
- Improve palatability to drive dry matter intake
- Stimulate rumen function and microbial protein production
- High in dry matter to help bind feed, reducing sorting and dust

Typical Feed Rates

	Dairy	Beef	Youngstock	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 - 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	70
Total Sugars (%)	56	39
Crude Protein (%)	10	7
ME (MJ/kg)	12.5	8.8
Oil (%)	0.2	0.1
Ash (%)	12.7	8.9
Sodium (%)	0.6	0.2
Crude Fibre (%)	0	0
DCAB (mEq/100g)	47.29	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Stockmol 20 is available in bulk from 5-29t or as mini bulk from 1-4T. Typical specific gravity of 1.39kg/L or density of 730L/T.



Stockmol HE - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Stockmol HE (High Energy) has all the benefits of Stockmol 20, however, it has a higher crude protein and ME content. It has a lower viscosity than standard molasses benefiting from easier handling on farm with maximum flowability. Stockmol HE is ideal for use in home mixes to help reduce dust levels.

Suitable for all feeding systems.

Benefits include:

- High nutrient density providing a rich source of sugars, protein and organic matter
- Improve palatability to drive dry matter intake
- Stimulate rumen function and microbial protein production
- High in dry matter to help bind feed, reducing sorting and dust

Typical Feed Rates

	Dairy	Beef	Youngstock	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 – 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	69
Total Sugars (%)	51	35
Crude Protein (%)	11.5	7.9
ME (MJ/kg)	13.1	9
Oil (%)	0.29	0.2
Ash (%)	21	14.5
Sodium (%)	2.5	1.7
Crude Fibre (%)	0	0

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Stockmol HE is available in bulk from 5-29t.

Typical specific gravity of 1.34kg/L or density of 731L/T.

Molmax - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Molmax contains a higher proportion of liquid co-products to give a lower viscosity molasses blend which is ideal for de-dusting and binding home mixes. It is highly palatable helping to drive intakes and offers an economical option on farm.

Suitable for all feeding systems.

Benefits include:

- Highly rumen fermentable, stimulating rumen function and greater feed efficiency
- Excellent source of fermentable energy to enhance microbial protein production
- Thorough absorption into feed to help bind and reduce sorting and dust levels
- Improve palatability to drive dry matter intake
- Lower viscosity allows for excellent cold weather handling

Typical Feed Rates

	Dairy	Beef	Youngstock	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 – 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	65
Total Sugars (%)	45	29
Crude Protein (%)	11.5*	7.5
ME (MJ/kg)	12.5	8.13
Oil (%)	0.3	0.2
Ash (%)	16.3	10.6
Sodium (%)	5.2	3.4
Crude Fibre (%)	0	0

*Dependent on raw material availability

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Molmax is available in bulk from 5-29t or as mini bulk from 1-4T. Typical specific gravity of 1.35kg/L or density of 743L/T.



StiMOLator - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



StiMOLator is a high energy blend of molasses, liquid co-products and regulated release protein that will produce a highly cost-effective liquid option for use with buffer feeding and full winter rations. StiMOLator will stimulate dry matter intakes and improve rumen fermentation. StiMOLator can be used to improve palatability and reduce dust levels in a TMR wagon.

Suitable for all feeding systems.

Benefits include:

- Highly rumen fermentable, stimulating rumen function and greater feed efficiency
- Excellent source of fermentable energy to enhance microbial protein production
- Higher protein specification providing good levels of RDP in the diet
- Improve palatability to drive dry matter intake
- Lower viscosity allows for excellent cold weather handling

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 – 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	60
Total Sugars (%)	30	18
Crude Protein (%)	18	10.8
ME (MJ/kg)	12.2	7.32
Oil (%)	0.3	0.2
Ash (%)	27.2	16.3
Sodium (%)	6.2	3.7
Crude Fibre (%)	0	0
DCAB (mEq/100g)	55.35	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

StiMOLator is available in bulk from 5-29t.

Typical specific gravity of 1.33kg/L or density of 769L/T.

Molale - Technical Data Sheet

Feeding Suitability

Cattle



Molale provides the high palatability and energy of molasses, balanced with protein from a variety of sources. Drives intake of forages and ideal for binding feed and reducing dust levels. Easy to handle at low temperatures and shown to help ease respiratory problems through reduction of dust.

Suitable for all feeding systems.

Benefits include:

- Highly rumen fermentable, stimulating rumen function and greater feed efficiency
- Excellent source of fermentable energy to enhance microbial protein production
- Thorough absorption into feed to help bind and reduce sorting and dust levels
- Improve palatability to drive dry matter intake

Typical Feed Rates

	Dairy	Beef	Youngstock
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	60
Total Sugars (%)	42	25
Crude Protein (%)	16	9.6
ME (MJ/kg)	13.2	7.9
Oil (%)	0.5	0.3
Ash (%)	12.5	7.5
Sodium (%)	2	1.2
Crude Fibre (%)	0	0
DCAB (mEq/100g)	55.91	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Molale is available in bulk from 5-29t or as mini bulk from 1-4T. Typical specific gravity of 1.34kg/L or density of 790L/T.



Feeding Britain's Farms

Potblack - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Potblack is a blend of cane molasses, liquid co products and Regulated Release proteins to produce a free-flowing high protein liquid which can be used in either a TMR or for de-dusting home mixes. Provides a cost-effective method of supplying protein and sugars to rations low in protein such as straw and wholecrop silage.

Suitable for all feeding systems.

Benefits include:

- Excellent low-cost feed supplying good levels of protein, sugars and energy
- Highly rumen fermentable, stimulating rumen function and greater feed efficiency
- Thorough absorption into feed to help bind and reduce sorting and dust levels
- Improve palatability to drive dry matter intake
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 - 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	60
Total Sugars (%)	44	26
Crude Protein (%)	23.5	14
ME (MJ/kg)	12.3	7.4
Oil (%)	0.17	0.1
Ash (%)	25.7	15.4
Sodium (%)	5.7	3.4
Crude Fibre (%)	0	0
DCAB (mEq/100g)	51.25	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Potblack is available in bulk from 5-29t or as mini bulk from 1-4T.

Typical specific gravity of 1.32kg/L or density of 741L/T.

Regumix - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Regumix is a highly palatable molasses based liquid feed, rich in energy and protein with added Regulated Release protein, designed to get the most from forages. At 27% crude protein and 13.1 ME, it is designed to complement grass, mixed forage diets and straw-based rations. Its excellent palatability combined with good levels of protein and energy also make Regumix ideal to balance buffer feeds for grazing animals. Suitable for use in all feeding systems.

Benefits include:

- Excellent source of effective rumen degradable protein (ERDP)
- Improves dietary protein and energy balance
- Cost effective alternative to a dry blend
- Improves palatability and intakes promoting efficient forage digestion
- Harnesses the benefits of urea as an excellent and cost-effective protein source
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0	0.2 – 0.3

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	53	35.5
Crude Protein (%)	27	18
ME (MJ/kg)	13.1	8.8
Oil (%)	0.3	0.2
Ash (%)	10.4	7
Sodium (%)	3.6	2.4
Crude Fibre (%)	0	0
DCAB (mEq/100g)	42.72	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Regumix is available in bulk from 5-29t or as mini bulk from 1-4T. Typical specific gravity of 1.34kg/L or density of 741L/T.



Regupro 38 - Technical Data Sheet

Feeding Suitability

Cattle



Regupro 38 is a highly palatable molasses blend with added Regulated Release protein, supplying a high protein option when sugar levels are less critical, for example when high levels of sugar beet pulp or fodder beet are being fed. The Regupro blends are designed to complement rations containing a high level of grass silage helping to correct any energy and degradable protein imbalances.

Suitable for use in all feeding systems.

Benefits include:

- Excellent source of effective rumen degradable protein (ERDP)
- Improves dietary protein and energy balance
- Cost effective supplement to optimise use of bulk feeds
- Improves palatability and intakes promoting efficient forage digestion
- Harnesses the benefits of urea as an excellent and cost-effective protein source
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	60
Total Sugars (%)	30	18
Crude Protein (%)	38	23
ME (MJ/kg)	12.5	7.5
Oil (%)	0.2	0.1
Ash (%)	11.5	6.9
Sodium (%)	0.3	0.2
Crude Fibre (%)	0	0
DCAB (mEq/100g)	60.38	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Regupro 38 is available in bulk from 5-29t.

Typical specific gravity of 1.33kg/L or density of 784L/T.

Regupro 50 - Technical Data Sheet

Feeding Suitability

Cattle



Regupro 50 is a highly palatable molasses blend with added Regulated Release protein, supplying a high protein option when sugar levels are less critical, for example when high levels of sugar beet pulp or fodder beet are being fed. The Regupro blends are designed to complement rations containing a high level of grass silage helping to correct any energy and degradable protein imbalances.

Suitable for use in all feeding systems.

Benefits include:

- Excellent source of effective rumen degradable protein (ERDP)
- Improves dietary protein and energy balance
- Cost effective supplement to optimise use of bulk feeds
- Improves palatability and intakes promoting efficient forage digestion
- Harnesses the benefits of urea as an excellent and cost-effective protein source
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	60
Total Sugars (%)	42	25
Crude Protein (%)	50	30
ME (MJ/kg)	12.6	7.6
Oil (%)	0.2	0.1
Ash (%)	11	6.6
Sodium (%)	0.3	0.2
Crude Fibre (%)	0	0
DCAB (mEq/100g)	81.04	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Regupro 50 is available in bulk from 5-29t.

Typical specific gravity of 1.27kg/L or density of 774L/T.



Regumaize 44 - Technical Data Sheet

Feeding Suitability

Cattle



Regumaize 44 is a highly palatable molasses based liquid feed, rich in sugar and protein with added Regulated Release protein, designed to get the most from maize, wholecrop silage and straw. Regumaize blends have a high nutrient density meaning that high levels of animal performance can be supported.

Suitable for use in all feeding systems.

Benefits include:

- Excellent source of fermentable energy and nitrogen to ensure efficient microbial protein production
- Harnesses the benefits of urea as an excellent and cost-effective protein source
- Improves palatability and intakes promoting efficient forage digestion
- Improves dietary protein balance
- The synchrony between the sugar and protein promotes the growth of the rumen microbes fuelling microbial protein production in the rumen
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	69
Total Sugars (%)	55	38
Crude Protein (%)	44	30
ME (MJ/kg)	11.8	8.1
Oil (%)	0.2	0.15
Ash (%)	10.5	7.2
Sodium (%)	0.3	0.2
Crude Fibre (%)	0	0
DCAB (mEq/100g)	29.60	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Regumaize 44 is available in bulk from 5-29t or as mini bulk from 1-4T.
Typical specific gravity of 1.33kg/L or density of 742L/T.

Regumaize 65 - Technical Data Sheet

Feeding Suitability

Cattle



Regumaize 65 is a highly palatable molasses based liquid feed, rich in sugar and protein with added Regulated Release protein, designed to get the most from maize, wholecrop silage and straw. Regumaize 65 is designed for diets in which protein levels need an extra boost. Regumaize blends have a high nutrient density meaning that high levels of animal performance can be supported.

Suitable for use in all feeding systems.

Benefits include:

- Excellent source of fermentable energy and nitrogen to ensure efficient microbial protein production
- Harnesses the benefits of urea as an excellent and cost-effective protein source
- Improves palatability and intakes promoting efficient forage digestion
- Improves dietary protein balance
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef
Feed Rate (kg/head/day)	0.8 - 1.5	0.8 - 1.5

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	50	33.5
Crude Protein (%)	65	44
ME (MJ/kg)	11.4	7.6
Oil (%)	0.2	0.1
Ash (%)	10.5	7
Sodium (%)	0.2	0.1
Crude Fibre (%)	0	0

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Regumaize 65 is available in bulk from 5-29t.

Typical specific gravity of 1.28kg/L or density of 747L/T.



Sheepmol - Technical Data Sheet

Feeding Suitability

Sheep



Sheepmol and Sheepmol Plus are high dry matter, high sugar blends of cane molasses, glycerine and liquid co-products specifically formulated for sheep. The unique mix of energy sources is ideal to promote healthy lamb growth and maintain ewe health. With rumen space restricted in late pregnancy, liquid feeds are unique in having a low substitution rate allowing feed intakes to be maintained, reducing the risk of metabolic disorders. Sheepmol Plus provides all the benefits of Sheepmol with the added inclusion of a trace element and vitamin pack.

Suitable for use in all feeding systems.

Benefits include:

- Extra energy boost from feeding sugars and glycerine
- Glycerine is a glucose precursor, particularly helpful in supporting milk production and colostrum quality
- Ad-lib feeding reduces stress for sheep and saves time for the shepherd
- Highly palatable and improves intake and forage digestibility
- Balances variations in grazing/forage quality and quantity

Typical Feed Rates

	Sheep
Feed Rate (kg/head/day)	0.25

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	69
Total Sugars (%)	48	33
Crude Protein (%)	7	5
ME (MJ/kg)	13.5	9.3
Oil (%)	0.14	0.1
Ash (%)	15	10.4
Sodium (%)	3.5	2.4
Crude Fibre (%)	0	0

Vitamin and Mineral Pack Specification

Vitamin	Inclusion (IU/kg)	Mineral	Inclusion (mg/kg)
Vitamin A	42000	Cobalt	3
Vitamin D3	8000	Iodine	20
Vitamin E	150	Manganese	400
		Zinc	400
		Selenium	2.5

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Sheepmol is available in bulk from 5-29t or as mini bulk from 1-4T..

Typical specific gravity of 1.37kg/L or density of 743L/T.

Glyco-Ale - Technical Data Sheet

Feeding Suitability

Cattle



Glyco-Ale is a blend of cane molasses, glycerine and co-products. It is highly palatable with a balance of both energy and protein. It has been shown to increase intakes, reduce dust and stimulate forage digestion. Ideally suited when looking for a balance of energy and protein. The addition of glycerine to the molasses based liquid feed stimulates glucose production which is key for effective metabolism in high performing cattle. It has been shown to improve milk production and carcass composition.

Glyco-Ale is suitable for all feeding systems.

Benefits include:

- High nutrient density providing a rich source of sugars and energy
- Supports milk production in the first 100 days of lactation
- Provides an extra source of propionate in the rumen, saving amino acids for protein synthesis
- Thorough absorption into rations helps bind feed, reducing sorting and dust

Typical Feed Rates

	Dairy	Beef	Youngstock
Feed Rate (kg/head/day)	1 - 3	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	60
Total Sugars (%)	32	19
Carbohydrate (%)	12	7
Crude Protein (%)	16	9.6
ME (MJ/kg)	14.5	8.7
Oil (%)	0.5	0.3
Ash (%)	10.1	6
Sodium (%)	0.1	0.06
Crude Fibre (%)	0	0
DCAB (mEq/100g)	128.99	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Glyco-Ale is available in bulk from 5-29t.

Typical specific gravity of 1.30kg/L or density of 769L/T.



Feeding Britain's Farms

Glycomol - Technical Data Sheet

Feeding Suitability

Cattle



Glycomol is a high energy blend of cane molasses, glycerine and fermentation co-products. High in dry matter, sugar and fermentable energy it is ideally suited to high performing herds where protein is already in adequate supply. The addition of glycerine to the molasses based liquid feed stimulates glucose production which is key for effective metabolism in high performing cattle. It has been shown to improve milk production and carcass composition.

Glycomol is suitable for all feeding systems.

Benefits include:

- High nutrient density providing a rich source of sugars and energy
- Supports milk production in the first 100 days of lactation
- Provides an extra source of propionate in the rumen, saving amino acids for protein synthesis
- High in dry matter to help bind feed, reducing sorting and dust

Typical Feed Rates

	Dairy	Beef	Youngstock
Feed Rate (kg/head/day)	1 - 3	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	70
Total Sugars (%)	46	32
Carbohydrate (%)	12	8.4
Crude Protein (%)	7.5	5
ME (MJ/kg)	14.3	10
Oil (%)	0.5	0.35
Ash (%)	10.1	7
Sodium (%)	0.1	0.07
Crude Fibre (%)	0	0
DCAB (mEq/100g)	79.17	

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Glycomol is available in bulk from 5-29t.

Typical specific gravity of 1.38kg/L or density of 763L/T.

Glycopro - Technical Data Sheet

Feeding Suitability

Cattle



Glycopro is a high energy blend of cane molasses, glycerine and Regulated Release proteins. At 18% protein as fed it is designed to produce an ideal balance of fermentable energy and rumen degradable protein to be fed alongside low protein forages or grass silage in a TMR. The addition of glycerine to the molasses based liquid feed stimulates glucose production which is key for effective metabolism in high performing cattle. It has been shown to improve milk production and carcass composition.

Glycopro is suitable for all feeding systems.

Benefits include:

- High nutrient density providing a rich source of sugars, protein and energy
- Supports milk production in the first 100 days of lactation
- Provides an extra source of propionate in the rumen, saving amino acids for protein synthesis
- High in dry matter to help bind feed, reducing sorting and dust
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)
Feed Rate (kg/head/day)	1 - 3	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	43	29
Carbohydrate (%)	12	8
Crude Protein (%)	27	18
ME (MJ/kg)	14.1	9.5
Oil (%)	0.5	0.3
Ash (%)	10.1	6.8
Sodium (%)	0.1	0.07
Crude Fibre (%)	0	0

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Glycopro is available in bulk from 5-29t.

Typical specific gravity of 1.32kg/L or density of 740L/T.



Glycopro 44 - Technical Data Sheet

Feeding Suitability

Cattle



Glycopro 44 is a high energy, high protein blend of cane molasses, glycerine and Regulated Release proteins. It is designed to produce an ideal balance of fermentable energy and rumen degradable protein to be fed alongside maize and whole crop based diets where extra protein is required. The addition of glycerine to the molasses based liquid feed stimulates glucose production which is key for effective metabolism in high performing cattle. It has been shown to improve milk production and carcass composition.

Glycopro 44 is suitable for all feeding systems.

Benefits include:

- High nutrient density providing a rich source of sugars, protein and energy
- Supports milk production in the first 100 days of lactation
- Provides an extra source of propionate in the rumen, saving amino acids for protein synthesis
- Harnesses the benefits of urea as an excellent and cost-effective protein source
- High in dry matter to help bind feed, reducing sorting and dust
- The synchrony between the sugar and protein promotes the growth of the rumen microbes fuelling microbial protein production in the rumen
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Youngstock (>3 months)
Feed Rate (kg/head/day)	1 - 2	1 - 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	69
Total Sugars (%)	44	30
Carbohydrate (%)	12	8
Crude Protein (%)	44	30
ME (MJ/kg)	13.6	9.4
Oil (%)	0.5	0.3
Ash (%)	10.1	7
Sodium (%)	0.1	0.07
Crude Fibre (%)	0	0

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Glycopro 44 is available in bulk from 5-29t.

Typical specific gravity of 1.30kg/L or density of 756L/T.

Prime 20 - Technical Data Sheet

Feeding Suitability

Sheep & Cattle



Prime 20 is a high performance liquid feed supplement for livestock at grass, or on forage-based systems. It provides a quality source of sugars, proteins with added Regulated Release protein and essential vitamins and trace elements. It is an ideal supplement pre tupping, pre lambing and post lambing to help sustain ewes. For cattle, it can be used to de-dust and nutritionally balance cereal-based rations or poor-quality forage.

Suitable for use in all feeding systems.

Benefits include:

- Protein, energy, vitamins and minerals in one easy to use feed
- Ad-lib feeding reduces stress for sheep and saves time for shepherd
- Highly palatable and improves intake and forage digestibility
- Balances variations in grazing/forage quality and quantity
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Dairy	Beef	Sheep
Feed Rate (kg/head/day)	1 - 2	1 - 2	0.25

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	58	39
Crude Protein (%)	30	20
ME (MJ/kg)	12	8
Oil (%)	0.3	0.2
Ash (%)	12	8
Sodium (%)	0.15	0.1
Crude Fibre (%)	0	0

Vitamin and Mineral Pack Specification

Vitamin	Inclusion (IU/kg)	Mineral	Inclusion (mg/kg)
Vitamin A	42000	Cobalt	3
Vitamin D3	8000	Iodine	20
Vitamin E	150	Manganese	400
		Zinc	400
		Selenium	2.5
		Copper (Cattle Mix ONLY)	120

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability: Prime 20 is available in bulk from 5-29t or as mini bulk from 1-4T. Typical specific gravity of 1.35kg/L or density of 752L/T.



Prime 32 - Technical Data Sheet

Feeding Suitability

Cattle



Prime 32 is a high performance liquid feed supplement for cattle, providing a quality source of sugars, proteins with added Regulated Release protein and essential vitamins and trace elements. It is an ideal supplement for straw-based diets to provide a maintenance ration for spring calving suckler cows or rearing dairy heifers as it helps develop good rumen function.

Suitable for use in all feeding systems.

Benefits include:

- Protein, energy, vitamins and minerals in one easy to use feed
- High nutrient density
- Highly palatable and improves intake and forage digestibility
- Stimulates rumen function and efficiency
- The synchrony between the sugar and protein promotes the growth of the rumen microbes fuelling microbial protein production in the rumen
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Beef	Youngstock (>3 months)
Feed Rate (kg/head/day)	1.0 – 1.5	Up to 0.5

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	55	37
Crude Protein (%)	48	32
ME (MJ/kg)	11.8	7.9
Oil (%)	0.15	0.1
Ash (%)	11	7.6
Sodium (%)	0.15	0.1
Crude Fibre (%)	0	0

Vitamin and Mineral Pack Specification

Vitamin	Inclusion (IU/kg)	Mineral	Inclusion (mg/kg)
Vitamin A	42000	Cobalt	3
Vitamin D3	8000	Iodine	20
Vitamin E	150	Manganese	400
		Zinc	400
		Selenium	2.5
		Copper	120

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability: Prime 32 is available in bulk from 5-29t or as mini bulk from 1-4T. Typical specific gravity of 1.31kg/L or density of 758L/T.

Prime 44 - Technical Data Sheet

Feeding Suitability

Cattle



Prime 44 is a high performance liquid feed supplement for cattle, providing a quality source of sugars, proteins with added Regulated Release protein and essential vitamins and trace elements. It can be used as an extra protein boost for cattle on forage and straw/cereal-based systems.

Prime 44 can be given free access, but is usually poured over forage or mixed into the ration.

Benefits include:

- Protein, energy, vitamins and minerals in one easy to use feed
- Cost effective source of protein
- Highly palatable and improves intake and forage digestibility
- Stimulates rumen function and efficiency
- Addition of non-protein nitrogen provides the rumen with a source of ammonia which acts as a growth factor for the rumen microbes

Typical Feed Rates

	Cattle
Feed Rate (kg/head/day)	0.75

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	49	33
Crude Protein (%)	66	44
ME (MJ/kg)	10.4	7
Oil (%)	0.15	0.1
Ash (%)	12	8
Sodium (%)	0.15	0.1
Crude Fibre (%)	0	0

Vitamin and Mineral Pack Specification

Vitamin	Inclusion (IU/kg)	Mineral	Inclusion (mg/kg)
Vitamin A	42000	Cobalt	3
Vitamin D3	8000	Iodine	20
Vitamin E	150	Manganese	400
		Zinc	400
		Selenium	2.5
		Copper	120

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability: Prime 44 is available in bulk from 5-29t or as mini bulk from 1-4T.

Typical specific gravity of 1.27kg/L or density of 764L/T.



Caledonia Syrup - Technical Data Sheet

Feeding Suitability

Cattle



Caledonia Syrup is made from distillery and food industry syrups and can be used as a replacer for pot ale syrup. It is a readily available source of energy and protein, and is an ideal balancer to cereals and other low protein feedstuffs. It is highly palatable driving voluntary intakes, flows easily and helps to reduce ration sorting and dust levels.

Suitable for feeding via mixer wagon.

Typical Feed Rates

	Dairy	Beef
Feed Rate (kg/head/day)	Up to 10% DMI	Up to 10% DMI

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	39
Total Sugars (%)	8	3
Crude Protein (%)	28	11
ME (MJ/kg)	13.5	5.0

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Caledonia Syrup is available in full loads only at 27t, artic access will be required on farm. Typical specific gravity of 1.21kg/L or density of 824L/T. Only available out of Grangemouth.

Highland Blend - Technical Data Sheet

Feeding Suitability

Cattle



Highland Blend is ideal for use in dairy and beef diets where TMR mixes require palletising and de-dusting. Its lower viscosity will allow excellent absorption within a TMR mix or when poured over forage. Ideal for use in a balanced ration where barley will be used.

Highland Blend provides the palatability and energy of molasses balanced with the protein from distillers' co-products.

Suitable for feeding in mixer wagons, forage boxes or poured over forage.

Typical Feed Rates

	Dairy	Beef	Youngstock
Feed Rate (kg/head/day)	1 – 2	1 – 2	Up to 1.0

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	55
Total Sugars (%)	30	18
Crude Protein (%)	22	12
ME (MJ/kg)	12.7	7
Oil (%)	0.5	0.3
Ash (%)	35	19
Sodium (%)	6.1	3.4
Crude Fibre (%)	0	0

For further nutritional information, including NutriOpt data, to input into rationing software please contact technical-info@edfman.com

Availability:

Highland Blend is available in bulk from 5-29t.

Typical specific gravity of 1.30kg/L or density of 769L/T.

Only available out of Grangemouth.



Transition Cow Syrup - Technical Data Sheet

Feeding Suitability

Cattle



Transition Cow Syrup is a liquid feed specifically formulated for dry cows with a high sugar level promoting dry matter intakes, along with a low DCAB value to help reduce metabolic disorders. The addition of glycerine, a high dry matter, high energy raw material helps to raise the energy density of the blend and has the added benefit of being highly palatable and naturally low in potassium.

Glycerine is also a glucose precursor when adsorbed in the intestines, helping to support high milk production in the first 100 days of lactation.

Magnesium chloride is an anionic salt added at 3% to reduce the DCAB of the blend. This lowers the blood pH promoting calcium metabolism from the bones. This helps to prepare the cow for the increased calcium demand post calving reducing the risk of milk fever.

Benefits include:

- Supports higher peak milk yield
- Boosts mean milk yield in the first 56 days
- Improved dry matter intakes post-calving
- Improves energy balance aiming to reduce metabolic stress

Feed Recommendations

- Feed Transition Cow Syrup at a rate of 1.5-2kg/day for the last 3-4 weeks pre-calving.
- If dry cows are run as one group, then feed at half rate for the whole dry period.
- Restrict total silage intake to around 6-8kg DM/head/day.
- Provide unlimited access to fresh straw and clean water.

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	70
Total Sugars (%)	36	25.2
Carbohydrate (%)	8	5.6
Crude Protein (%)	9	6.3
ME (MJ/kg)	14.1	9.9
Oil (%)	0.1	0.1
Ash (%)	15.9	11.1
Sodium (%)	0.1	0.1
Crude Fibre (%)	0	0
DCAB (meq/100g)	-251.83	

Availability:

Transition Cow Syrup is available in IBC's (approx. 1T) delivered to farm.

Typical specific gravity of 1.33kg/L or density of 752L/T.

RoboMol - Technical Data Sheet

Feeding Suitability

Cattle



Robo-Mol is a filtered molasses blend specifically designed for use in robotic milking herds in conjunction with Lely Centre Yeovil. The blend has been filtered to a specific level to ensure optimum flowability through robots. The high palatability of Robomol with the addition of caramel flavouring helps encourage cows to milk voluntarily to help drive production on farm.

Benefits include:

- The most cost-effective source of sugars on farm
- High palatability increases robot visits maximising animal performance
- Several farmers have reported that heifers are easier to train
- Stimulate rumen function and microbial protein production

Typical Feed Rates

	Dairy
Feed Rate (ml/visit)	50 -100

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	55	
Total Sugars (%)	64	35
Crude Protein (%)	6.5	3.5
ME (MJ/kg DM)	12.7	7.0
Oil (%)	0.2	0.1
Ash (%)	6.9	3.8
Sodium (%)	0.2	0.1
Crude Fibre (%)	0	0

Availability:

Robomol is available in 1T IBC's delivered to farm.
Typical specific gravity of 1.28kg/L or density of 781L/T.



ReguSmart 27 - Technical Data Sheet

Feeding Suitability

Cattle



ReguSmart 27 is a highly palatable molasses based liquid feed with added MetaSmart, a liquid source of metabolisable methionine for ruminants. The blend is rich in protein and energy and designed to support protein efficiency on farm through targeted protein nutrition. ReguSmart 27 is also designed to help get the most from home grown forages by promoting fibre digestion and microbial protein synthesis. At 27% crude protein and 13.1 ME, it is designed to complement grass, mixed forage diets and straw-based rations.

Suitable for use in all feeding systems.

Benefits include:

- Achieve precision feeding through the use of an amino acid enhanced molasses blend
- Reduce reliance on bought in protein feeds with targeted protein nutrition
- Improve dietary protein and energy balance
- Improve palatability and intakes promoting efficient forage digestion
- Generate more milk, more protein and more fat in the most cost-effective way possible
- Easy and convenient to use ensuring good mixing efficiency on farm

Typical Feed Rates

	Dairy
Feed Rate (kg/head/day)	1.4

Specification

	Dry Matter Basis	As fed
Dry Matter (%)	100	67
Total Sugars (%)	53	35.5
Crude Protein (%)	27	18
ME (MJ/kg)	13.1	8.8
Oil (%)	0.3	0.2
Ash (%)	10.7	7.2
Sodium (%)	0.3	0.2
Crude Fibre (%)	0	0
Methionine (g/kg)	9.25	9.25

Availability: ReguSmart 27 is available in bulk from 5-29t
Specific gravity of 1.30kg/l or density of 767L/T.

Fresh-Guard

Worried about your TMR Heating?

It is vital to produce a high quality well balanced ration, but this can quickly be undermined if the ration starts to ferment and heat. The quality can then quickly deteriorate. Feed spoilage in the trough has been identified as a significant cost to farmers.

A cow eating 1 kg less dry matter due to aerobic spoilage could be producing around 2 litres less milk. What makes it worse is that it is the high value nutrients that spoil most quickly. The **Fresh-Guard** option can be included in any of ED&F Man's bulk molasses products.

Effective in preventing TMR spoilage at feed out, **Fresh-Guard** is a cost effective option available to farmers looking to prevent heating/spoilage.

For example, a typical cow will eat around 22kg dry matter (DM) of a TMR per day.

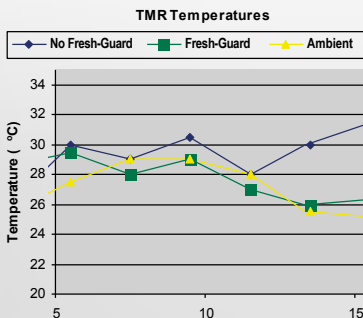
A 5% reduction in dry matter intakes due to heating in the TMR and production of off odours would mean a loss of around 1.1kg DM per cow per day.

This loss in intake means the cow is receiving less high value nutrients within the ration including protein and energy.

Based on an 11MJ/kg DM ration, this 1.1kg loss would equate to a loss of 12.1MJ of energy.

That could have made an extra 2L of milk, or in a 300-cow herd that's 600L of milk lost with a value of £150 per day. Over a 100-day summer, this would be a potential loss of income of up to **£15,000!**

Fresh-Guard can be added to any ED&F Man liquid product



Lick Feeders

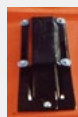
35L 2 WHEEL LICK FEEDER

- Feeds 40-60 sheep
- 3" Central Fill Point



95L 5 WHEEL LICK FEEDER

- Feeds up to 50 cattle / 100 sheep
- Calibrated to see level
- 4" Fill point
- 2" Pipework connection points at both ends and back of feeder
- Pipework and attachments included in cost
- Option of adding lick limiters (at extra cost)



250L 2 WHEEL LICK FEEDER

- Feeds 50/60 cattle / 200 sheep
- Built in lifting hook for easy transportation
- Timber sub-frame skid minimises wear
- Easily cleaned large screw filler cap



1,000L 4 WHEEL LICK FEEDER (Plastic)

- Feeds up to 100 cattle
- Capacity 1,000L – ideal for storage and feeding
- Receive delivery straight in to feeder
- Tough durable plastic
- Can be used indoors or outdoors



1,000L 4 WHEEL LICK FEEDER (Metal)

- Feeds up to 100 cattle
- Capacity 1,000L – ideal for storage and feeding
- Receive delivery straight in to feeder
- Easy to move, built-in forklift slots
- Can be used indoors or outdoors
- Ideal for larger/more boisterous stock



Typical analysis (dry matter basis)

	DM (%)	Total Sugars (%)	Sugars as fed (%)	Crude Protein (%)	Crude Protein as fed (%)	ME (MJ/kg)	Vits and Mins	Density Litres/MT	Specific Gravity (kg/L)
Standard Blends									
Cane	0.74	64	47.4	6.5	4.8	12.7	No	714	1.44
Economol	0.71	64	45.4	6.5	4.6	12.7	No	724	1.42
Stockmol 20	0.7	56	39.2	10	7.0	12.5	No	730	1.39
Stockmol HE	0.69	51	35.2	11.5	7.9	13.1	No	731	1.34
Molmax	0.65	45	29.3	11.5	7.5	12.5	No	743	1.35

Protein Held Blends									
StiMOLator	0.6	30	18.0	18	10.8	12.2	No	769	1.33
Molale	0.6	42	25.2	16	9.6	13.2	No	790	1.34
MarMolade	0.64	38	24.3	16	10.2	12.4	No	800	1.25
Pot Black	0.6	44	26.4	23.5	14.1	12.3	No	741	1.32

Protein Enhanced Blends									
Regu-pro	0.6	30	18.0	38	22.8	12.5	No	784	1.33
Regumix	0.67	53	35.5	27	18.1	13.1	No	741	1.34
Regumaize 44	0.69	55	38.0	44	30.4	11.8	No	742	1.33
Regumaize 65	0.67	50	33.5	65	43.6	11.4	No	747	1.28
Regupro 50	0.6	42	25.2	50	30.0	12.6	No	774	1.27

Glycerine Enhanced Range									
Sheepmol	0.69	48	33.1	7	4.8	13.5	No	743	1.37
Sheepmol Plus	0.69	48	33.1	7	4.8	13.5	Yes	743	1.37
Beefmol	0.67	40	26.8	21	14.1	13.2	No	763	1.31
GlycoMol	0.7	46	32.2	7.5	5.3	14.3	No	763	1.38
Glycopro	0.67	43	28.8	27	18.1	14.1	No	740	1.32
Glycopro 44	0.69	44	30.4	44	30.4	13.6	No	756	1.30
Glyco-Ale	0.6	32	19.2	16	9.6	14.5	No	769	1.30

Liquid Feed / Special blends									
Prime 20	0.67	58	38.9	29.9	20.0	12	Yes	752	1.35
Prime 32	0.67	55	36.9	47.8	32.0	11.8	Yes	758	1.31
Prime 44	0.67	49	32.8	65.7	44.0	10.4	Yes	764	1.27
Biomag 3.5%	0.58	45	26.1	3.9	2.3	9.4	Yes	739	1.35

Syrups									
Suga-Fix	0.55	38	21	16	9	12.7	No	763	1.31
Caledonian Syrup	0.39	8	3	28	11	13.5	No	824	1.21
Highland Blend	0.55	30	18	22	12	12.7	No	769	1.30

Special Blends									
Biomag (+3.5% Mag)	0.58	45	26.1	3.9	2.3	9.4	Yes	739	1.35
Transition Cow Syrup	0.7	36	25.2	9	6.3	14.1	No	752	1.33
Robomol	0.55	64	35	6.5	3.5	12.7	No	781	1.28
ReguSmart 27 (+ Methionine)	0.67	53	35.5	27	18	13.1	No	767	1.30



NO TANK NO PROBLEM

FINANCE SCHEME AVAILABLE

Trial a storage tank - for free!

If you are thinking of using molasses for the first time, and you want to see if it works for you and your stock, then ED&F Man offer a tank trial scheme.

In ED&F Man's tank trial scheme, a fully-equipped storage tank is delivered on-farm for two months, you only pay for the product. During this time the beneficial effects of using ED&F Man's molasses products can be assessed. After the two month trial period, you can purchase the tank outright, or spread the payment using ED&F Man's interest free finance scheme. In the unlikely event of seeing no benefits, the tank can be returned at no cost, except that of the product purchased.

These high level tanks are convenient to use, and allow more cost-effective bulk purchases to be made.

Offer may be withdrawn at any time and is subject to terms and conditions.

Want to know more?

Contact your local
Commercial Manager:

Richard Dobson 07764 344716

Angela Sutherby 07957 642669

Danielle Goatley 07710 075824

Georgina Chapman 07485 192774
Nutritionist | Technical Support Manager



Freephone 0800 3898450

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