GRAIN TRADE AUSTRALIA

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Section 9 – MILLING BY-PRODUCTS & FIBRE STANDARDS

2022/2023 SEASON

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MILL MOLASSES (CANE)
CSBP - 1

DESCRIPTION:
Mill molasses (Cane) is a by-product of the manufacture of raw sugar from sugar cane. It is the residual syrup remaining after all commercially crystallisable sugar has been removed from filtered and concentrated raw sugar liquor.

PHYSICAL PROPERTIES

Colour	Dark Brown
Texture	Sticky viscous syrup with the viscosity varying depending on type, origin, temperature and processing variables
Odour	Slight sweet odour

CHEMICAL PROPERTIES

Total Sugar	Min 46%
Total Solids	Min 70%
Crude Protein	Min 3%
Sulphated Ash	7-15%
Brix	Min 80 degrees

GENERAL ACCEPTANCE
Molasses should be wholesome and free from all traces of extraneous matter.

COMMENT
The origin of cane molasses in Australia can either be from a sugar mill (mill molasses) or sugar refinery (refinery molasses). The main difference is that molasses produced in a refinery is suitable for human consumption whereas mill molasses is not.

The following comments refer to mill molasses as it is the most commonly traded molasses in Australia.

Mill molasses is an agricultural product and its composition varies with the variety and maturity of the cane as well as climatic and soil conditions. In addition, processing conditions in the sugar mill may also bring about changes in the composition of molasses. For these reasons it is not possible to establish a typical analysis of molasses but a broad range of composition may be given. Total solids as determined by drying methods may vary from 70% to 85% and the sucrose content may be from 25% to 40%. Reducing sugars as determined by copper reduction methods may be 12% to 35%. The total sugar content, both sucrose and reducing sugars, is usually about 50% but can be in considerable excess of this figure.

The inorganic part of molasses when determined as sulphated ash may be between 7% and 15%. For feed purposes, ash without the use of sulphuric acid is used and this is a lower determined figure than that produced by sulphating. The major constituents of the ash are potassium, calcium, magnesium, sodium, iron, sulphate, chloride, phosphates and silica. For trading purposes ash may be referred to as sulphated ash and it is seldom that the individual constituents are analysed on a routine basis.

There is considerable variation in the chemical properties of molasses depending on such things as method of analysis, variety and maturity of the canes as well as climatic and soil conditions.

MILL/RUN WHEAT* OFFAL
CSBP - 2

ORIGIN GRAIN:	Wheat*. * Note for other origins or sources of the millrun, insert the name of the dominant grain which is the primary grain source of the millrun offal.
DESCRIPTION:	Consists of coarse wheat* bran, fine wheat* bran, wheat* pollard, wheat* flour.
PHYSICAL PROPERTIES:	Colour Light tan to brownish. Texture Grind shall be uniform and material free of any lumps. Odour Clean and free from mustiness, sourness or any other odour which suggests an off-quality condition.
CHEMICAL PROPERTIES:	Moisture Maximum 14%
NIL ACCEPTANCE:	Toxic matter or chemicals prohibited by National or State Laws against inclusion in Stockfeeds, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent. Chemical residues are not to exceed the MRLs established by the APVMA for wheat* bran. To be free of water damage, rodent and insect infestation. To be free of any foreign materials such as unground screenings, straw, wheat* chaff, seeds of any other commodity, weed seeds.

RICE POLLARD
CSBP - 3

DESCRIPTION:

The pericarp or bran layer and germs of the rice with only such quantity of hull fragments and broken rice as is unavoidable in the regular milling of edible rice.

PHYSICAL PROPERTIES:

Colour
Light tan to brown.

Texture
Shall be uniform with material free of lumps indicative of water damage.

Odour
Clean and free from rancid, musty or any other odour which suggests an off-quality condition.

CHEMICAL PROPERTIES:

Crude Protein
Minimum 12.5%

Moisture
Maximum 12%

Crude Fat
Minimum 17%

Crude Fibre
Maximum 9%

NIL ACCEPTANCE:

Toxic matter or chemicals prohibited by State Laws against inclusion in Stockfeeds, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health.

Salmonella must be absent.

Not to contain any foreign materials such as seeds etc.

To be free of rodent and insect infestation.

BISCUIT MEAL
CSBP - 4

DESCRIPTION:

Biscuit meal is the ground up meal produced from rejected, broken biscuits excluding cream, jam or fruit type biscuits.

PHYSICAL PROPERTIES:

Texture
Pre ground into a meal form to ensure 80% passes through a 2.36 mm sieve.

Odour
Clean and free from mustiness, sourness or any other odour which suggests an off-quality condition.

CHEMICAL PROPERTIES:

Crude Protein
Minimum 8%

Crude Fat
Minimum 20%

Crude Fibre
Maximum 1% (as is)

NIL ACCEPTANCE:

Toxic matter or chemicals prohibited by State Laws against inclusion in stockfeed, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent.

Must be free from water damage, insect and rodent damage.

HOMINY MEAL
CSBP - 5

DESCRIPTION:

Hominy meal is a ground mixture of corn bran, germ and starchy portions of the kernel which is produced in the manufacture of table meal.

PHYSICAL PROPERTIES:

Colour
Yellowish brown to pale yellow

Texture
90% through a 2.00 mm sieve.

Odour
That of ground corn, sweet and free from sourness or any odour which suggests a mouldy or heated condition.

CHEMICAL PROPERTIES:

Crude Protein
Minimum 9.0%

Fat
Minimum 9.0%

Crude Fibre
Maximum 5% (as is)

Moisture
Maximum 12.5%

NIL ACCEPTANCE:

Toxic matter or chemicals prohibited by State Laws against inclusion in Stockfeeds, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent.

Must be free from water damage, insect and rodent damage.

G.O.M.F.
CSPB - 6

DESCRIPTION:

G.O.M.F. consists of oat hulls ground through a 3.5 mm screen.

PHYSICAL PROPERTIES:

Colour
Tan to Grey

Texture
Particle size should be uniform with no whole grain present.

Odour
Clean and free from mustiness, sourness or any other odour which suggests an off-quality condition.

CHEMICAL PROPERTIES:

Variation of the chemical properties will occur as a result of ingredient variation.

Guidelines are as follows:

Moisture:	maximum	12.0%
Crude Protein:	range	3-9%
Crude Fibre:	maximum	22.0%
Crude Fat:	minimum	3.0%

NIL ACCEPTANCE:

Toxic matter or chemicals prohibited by State Laws against inclusion in Stockfeeds, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent.

Must be free from water damage, insect and rodent damage.

D. MEAL
CSBP - 7

DESCRIPTION: Consists of wheat pollard and wheat flour.

PHYSICAL PROPERTIES:

Colour
Light tan to brownish.

Texture
Not to contain any foreign materials such as un-ground screenings, straw, wheat chaff, seeds etc.

Odour
Clean and free from mustiness, sourness or any other odour which suggests an off-quality condition.

CHEMICAL PROPERTIES:

Crude Protein
Minimum 13.5%

Moisture
Maximum 13.0%

NIL ACCEPTANCE: Toxic matter or chemicals prohibited by State Laws against inclusion in Stock feed, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent.

Must be free from water damage, insect and rodent damage.

GROATS - STABILIZED
CSBP - 8

DESCRIPTION:

Stabilized groats are obtained by cleaning and de-hulling sound oats of acceptable bulk density and steam treating the resultant groats to inactivate lipase and lipoxidase enzymes in order to minimise development of rancidity.

PHYSICAL PROPERTIES:

Colour
Grey to straw colour

Texture
Smooth slightly greasy texture

Odour
Must smell fresh and clear of rancid or musty odour.

CHEMICAL PROPERTIES:

Moisture
Maximum 12.0%

Crude Protein
Will vary with the protein of original grain. Should be maintained at a minimum of 9.0%.

Crude Fat
4-7% approx.

Free Fatty Acid
Maximum 5% of lipid content

Lipase activity
Maximum 0.01% meg/hr/gram

NIL ACCEPTANCE:

Toxic matter or chemicals prohibited by State Laws against inclusion in Stockfeeds, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent.

Must be free from water damage, insect and rodent damage.

RICE HULLS
CSBP - 9

DESCRIPTION:

Consists mainly of the outer covering of the rice. Can be in ground or whole form. Is a high fibre, low energy feedstuff.

PHYSICAL PROPERTIES:

Colour
Off white to straw coloured.

Texture
Can be fine ground or in whole unground form. Sometimes contains small particles of cracked rice.

Odour
Clean and free from mustiness, sourness or any other odour which suggests an off-quality condition.

CHEMICAL PROPERTIES:

Moisture Maximum 12.0%

Crude Protein
Minimum 2.0%

Crude Fat
Maximum 1.0%

Crude Fibre
Maximum 40.0%

*Ash
Maximum 15.0%

* Ash can be very high due to sand content

NIL ACCEPTANCE:

Toxic matter or chemicals prohibited by State Laws against inclusion in Stockfeeds, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health. Salmonella must be absent.

Must be free from water damage, insect and rodent damage.

Sorghum Distillers Co-products

Co-product	Wet Distillers Grains	Wet Distillers Grains With Solubles	Condensed Distillers Solubles	Dried Distillers Grain
Standard	CSBP-10	CSBP-11	CSBP-12	CSBP-13
Description	The non-fermentable residues of sorghum grain from the production of ethanol	Sorghum wet distillers grain with the inclusion of a minimum 25% condensed distillers solubles	The liquid fraction and residues left from the production of ethanol using sorghum grain	Wet distillers grains dried (with or without) solubles dried under heat
Dry Matter *(minimum)*	33.0%	30.0%	30.0%	88.0%
Crude Protein *(minimum)* *(DMB)*	35.0%	30.0%	25.0%	30.0%
Crude Fibre *(maximum)* (DMB)	10.0%	8.0%	1.0%	10.0%
Fat/Oil *(minimum)* (DMB)	6.0%	8.0%	10.0%	6.0%
Neutral Dietary Fibre *(maximum)* (DMB)	42.0%	42.0%	6.0%	46.0%
Colour	Rusty brown to red	Rusty brown to red	Milk coffee or slightly darker	Rusty brown to red
Odour	Pungent fermented yeasty	Pungent fermented yeasty	Pungent fermented yeasty	Fresh yeasty smell. Should not smell burnt
Texture	Sticky wet bran like that stays together when compressed in hand	Sticky wet bran like that stays together when compressed in hand	Thick syrupy liquid	Light, bran like
Ergosine *(maximum)*	200 ppb	200 ppb	200 ppb	200 ppb
Mycotoxins[1]				
Aflatoxins *(maximum)*	20 ppb	20 ppb	20 ppb	20 ppb
Deoxynivalenol *(maximum)*	5 ppm	5 ppm	5 ppm	5 ppm
Fumonisin *(maximum)*	20 ppm	20 ppm	20 ppm	20 ppm
Zearalenone *(maximum)*	1 ppm	1 ppm	1 ppm	1 ppm

NIL ACCEPTANCE – Toxic matter or Chemical residues in excess of Australian Commonwealth, State or Territory legal limits for inclusion in stockfeed, weeds, foreign seeds, live stored grain and field insects, rodent

[1] Limits are represented on a dry weight basis.

contamination, musty or mouldy smells, any excess amount of permitted chemicals, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health.

Wheat Distillers Co-products

Co-product	Condensed Distillers Solubles	Dried Distillers Grain
Standard	CSBP-14	CSBP-15
Description	The liquid fraction and residues left from the production of ethanol using wheat starch by-products	The non-fermentable residues of wheat starch products from the production of ethanol dried under heat
Dry Matter *(minimum)*	40.0%	88.0%
Crude Protein *(minimum)* *(DMB)*	17.0%	30.0%
Crude Fibre *(maximum)* (DMB)	1.0%	10.0%
Fat/Oil *(minimum)* (DMB)	5.0%	6.0%
Neutral Dietary Fibre *(maximum)* (DMB)	5.0%	35.0%
Colour	Dark brown	Dark brown
Odour	Pungent fermented yeasty	Fresh yeasty smell. Should not smell burnt
Texture	Thick syrupy liquid	Light, bran like
Ergotamine *(maximum)*	200 ppb	200 ppb
Mycotoxins[2]		
Aflatoxins *(maximum)*	20 ppb	20 ppb
Deoxynivalenol *(maximum)*	5 ppm	5 ppm
Fumonisin *(maximum)*	20 ppm	20 ppm
Zearalenone *(maximum)*	1 ppm	1 ppm

NIL ACCEPTANCE – Toxic matter or Chemical residues in excess of Australian Commonwealth, State or Territory legal limits for inclusion in stockfeed, weeds, foreign seeds, live stored grain and field insects, rodent contamination, musty or mouldy smells, any excess amount of permitted chemicals, gravel, stones or other injurious matter such as glass, metal or any substance harmful to animal health.

[2] Limits are represented on a dry weight basis.