CLUNY LIVESTOCKEXPORTS

"Quality is remembered long after price is forgotten"

Ed Sabol

Cluny Livestock Exports Pty. Ltd.
P.O. Box 520, Alexandria 2015, Australia
Tel: +61 2 8205 9617 MOB: +61 404 009343 Fax: +61 2 8252 4701
Email: angus.macpherson@clunyexports.com

www.clunyexports.com
Skype: angusmacpherson888

HAIR SHEEP A BREED FOR ALL CLIMATES

Brief History

The breed was developed in South Africa in the 1930's by crossing Blackhead Persian ewes with a Dorset Horn ram. They were bred to produce a high quality carcass under extensive conditions. The Blackhead Persian was selected for its non-selective grazing, coat shedding, hardiness and good mothering abilities. The Dorset Horn was selected for its rapid growth rates and carcass attributes.

The Breeding program resulted in the development of the black headed and white headed Dorper. Successive Dorper breeding has shown it to be a fixed breed type, giving a reliable reproduction of features and characteristics. It is now numerically the second to largest sheep breed in South Africa.

The breed was introduced into Australia in 1996 and has the potential to be developed for domestic and export meat markets and is revolutionizing the sheep industry in this country.

HAIR SHEEP A BREED FOR ALL CLIMATES



DORPER SHEEP

Conformation

The animal is characteristically barrel shaped with short, dullish black or white hair on the head. A short, loose light covering of hair and wool (wool predominating on the forequarter) with a natural clean kempt underline, is a typical breed standard.

An even distribution of a thin layer of fat compliments the breed.

The Dorper sheds its fleece as hotter weather approaches in the Spring in Australia, thus avoiding the need for mustering for shearing, crutching and fly control. The Dorper, Van Rooy and Damara would be ideal for tropical climates as they are hair not wool sheep with a toughness that suits all environments. They are also well suited to temperate or cold climates with the ability to grow hair in winter.

HAIR SHEEP A BREED FOR ALL CLIMATES

There is little difference between black headed and white headed Dorpers - the choice is a matter of target market preference. There is no scientific evidence that one color is superior to another.

The black headed animals are less popular as the black hair has been a problem in the abattoirs on carcasses. White Dorpers are dominating the market now in Australia.

Worldwide higher prices are paid for White Dorper pelts than Black Dorper pelts.

Van Rooy sheep are a newer breed and proving to be a highly successful cross with the Dorper. Dorper have also been crossed with Wiltshire, White Suffolk, Damara, Merino and Border Leicester breeds.



Worldwide the debate on healthy diet has focussed around the role of fatty acids and the groups or sub groups:

- □ Saturated Fatty Acids are best avoided according to research
- Monounsaturated Fatty Acids
- Polyunsaturated Fatty Acids
- ☐ Trans Fats which may be mono or polyunsaturated fatty acids -are generally accepted to increase the risk of heart disease.
- Essential Fatty Acids (EFA) Omega 3 and Omega 6 fatty acids that can not be produced by the human body. A balance between these two is essential to good health. Almost all Polyunsaturated fat in the human diet is form EAFs.

Malaysia has been no different in it's approach to this debate on health as seen in the website www.notrans.org

Trans fats have been shown in research to increase levels of LDL cholesterol (so called bad cholesterol), trans fats also lower levels of HDL cholesterol (good cholesterol). This analysis is supported by The New England Journal of Medicine (NEJM) a scientific review that states "from a nutritional point of view consumption of trans fatty acids results in considerable potential harm but no apparent benefit. Trans fatty acids are often industrially produced.

TRAIT	NAME	ТҮРЕ	DAMARA	DORPER	BOER	FOUND IN
C13:0	Lauric	Saturated (Trans fat)	2.74	2.97	3.93	Highest levels found in potato chips, biscuits, ice cream
C14:0	Myristic	Saturated	7.45	8.38	6.34	Palm oil, pastry, coconuts, nutmeg butter,
C15.0	Undefined	Saturated	0.63	0.59	0.66	Pastry, cheese, butter, ghee butter
C16:0	Butyric	Saturated	22.95	24.31	21.22	Primarily in Palm Oil, butter
C16:1	Palmitoleic	Monunsaturated	3.50	3.98	3.34	Primarily in Palm Oil
C17:0	Margaric	Saturated	2.15	2.09	2.24	Butter, margarine, cheese, pastry
C18:0	Stearic	Saturated	16.10	14.41	20.42	Cocoa, chocolate, Biscuits, pastry
C18:1	Oleic	Monunsaturated	38.55	37.55	36.57	Olive oil, peanut butter, biscuits
C18:3	Linoleic	Polyunsaturated	3.92	3.25	3.44	Lecithin, seafood, leafy vegetables

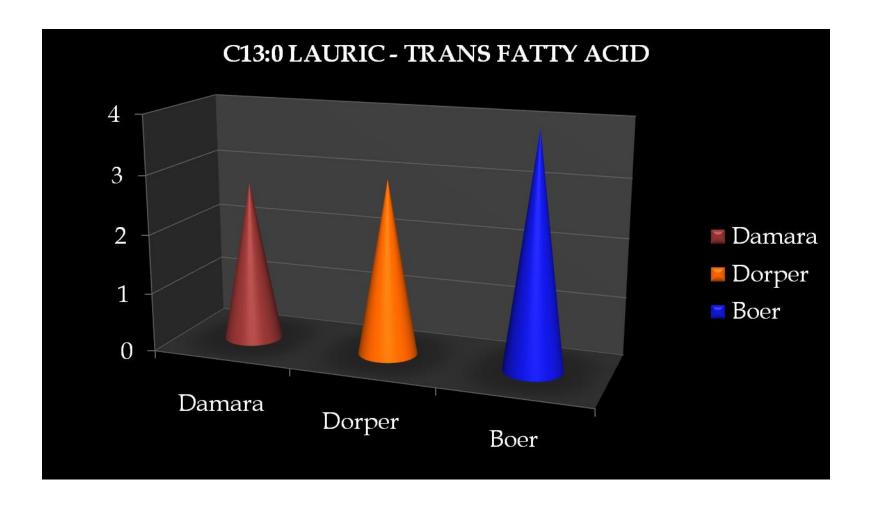
TRAIT	NAME	ТҮРЕ	DAMARA	DORPER	BOER	FOUND IN
C20:1	Gadoleic	Monunsaturated	2.04	2.24	1.85	Mustard powder, seafood
SFA		Saturated	51.94	52.82	54.80	
UFA		Unsaturated	48.06	47.18	45.20	
MUFA		Monounsaturated	44.13	43.92	41.76	
PUFA		Polyunsaturated	3.93	3.26	3.44	

References

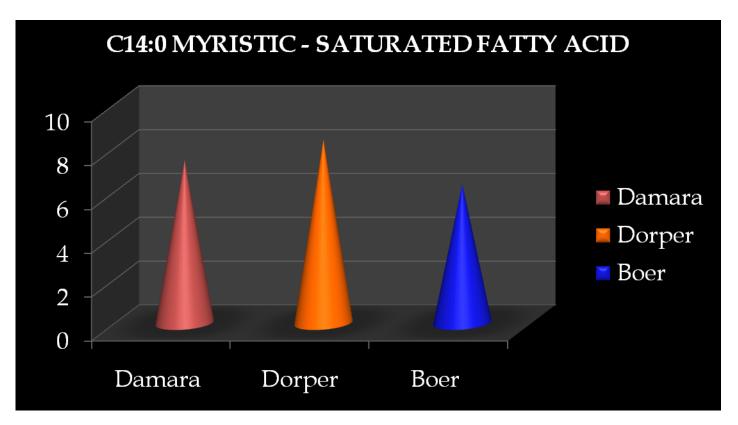
"CARCASS AND MEAT QUALITY CHARACTERISTICS OF TWO SHEEP AND TWO GOAT BREEDS PRODUCED UNDER EXTENSIVE FEEDING CONDITIONS."
P E STYDOM(PHDD) & P TSHABALA ANIMAL NUTRITION and Animal Products Institute, ARC, Private Bag X2, Irene, 0062

Other

www.foodstandards.gov.au



Lauric Acid is one of the main acids found in coconut and palm oils and is also found in mother's milk. It occurs in high levels in cream, sour cream, candies, carob, coffee and cocoa.



Myristic acid is found in Palm Oil and is widely used in the food industry. It has been deemed to be a safe additive according to research. It is also found in coconut oil, various nuts, various spices including nutmeg.

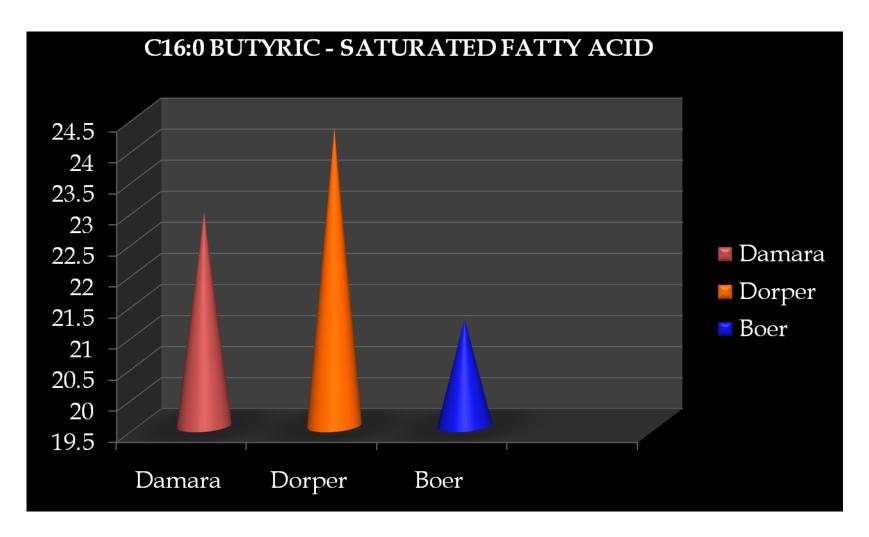
Reference

Food and Chemical Toxicology

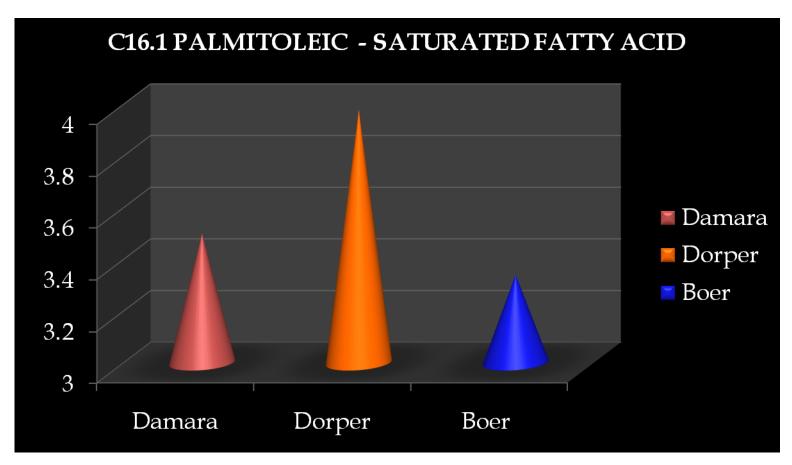
Volume 45, Issue 4, Pages 517-529

"Safety assessment of myristic acid as a food ingredient"

Authors: G.A. Burdock and I.G. Carabin

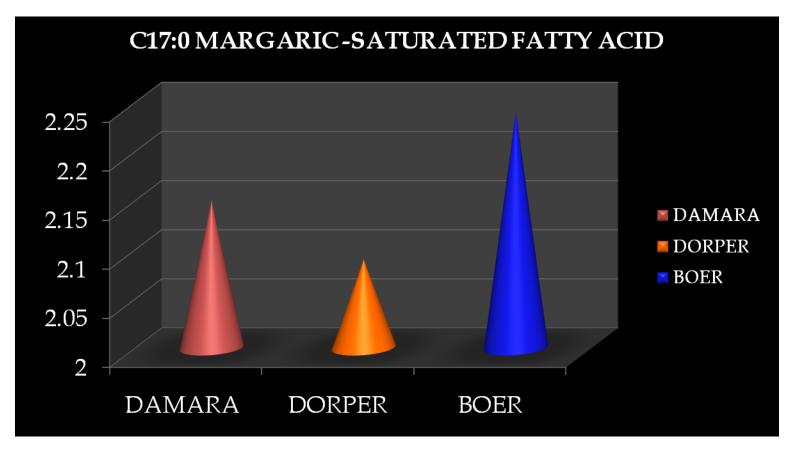


Occurs in small quantities in Palm Oil, and in higher levels in butter, cream and cheese. It is beneficial to the formation of healthy bacteria in the gut.

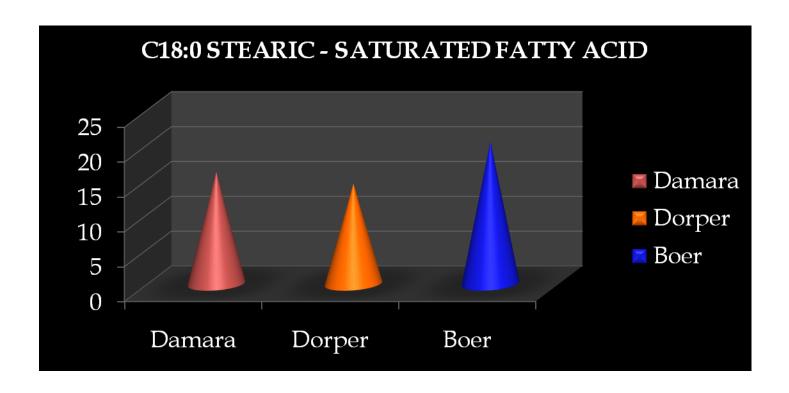


Palmitoleic Acid occurs in high levels in Palm Oil. Recent research has indicated that in a diet low in trans fatty acids there are health benefits in using this oil. Malaysian studies indicate that Palm Oil actually lowers cholesterol, this product is felt to be more natural and fresh than chemically pure and highly processed chemical Western Palm Oil, which some research indicates may actually raise cholesterol.

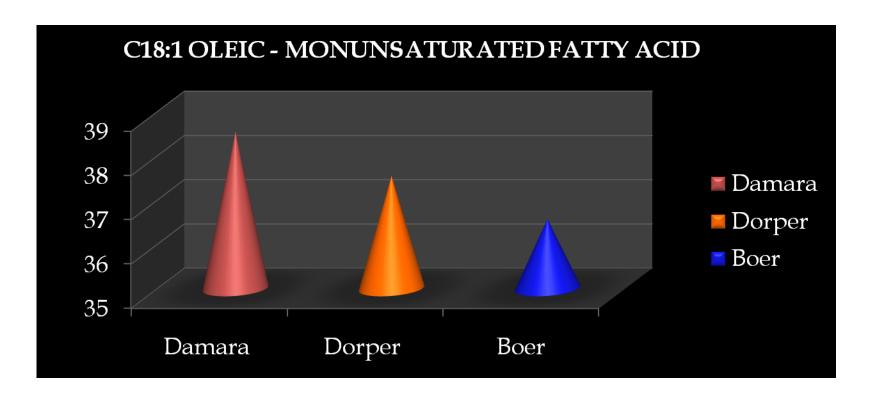
Sources: See www.americanpalmoil.publications/16fats



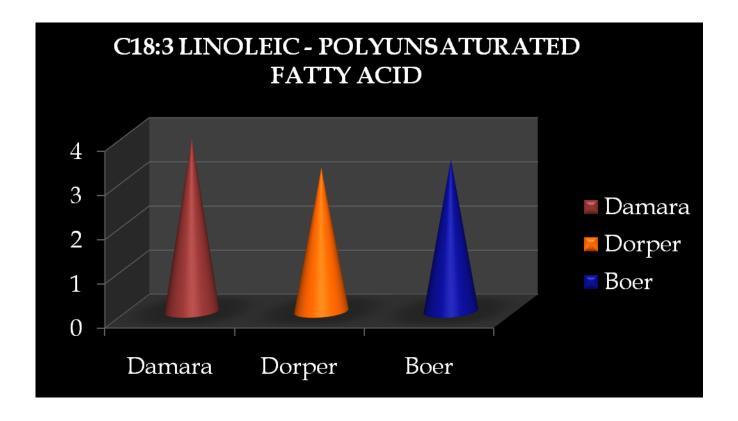
Occurs in margarine, butter and beef dripping, animal fats, lamb and beef.



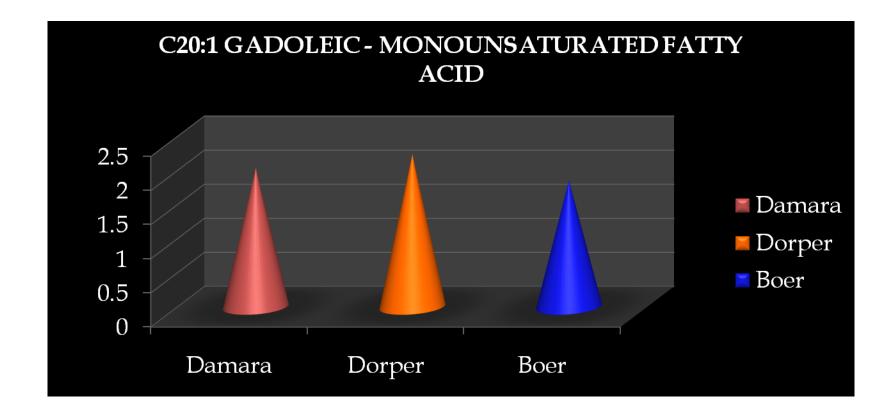
Stearic acid is useful as an ingredient in making candles, soaps, plastics, oil pastels and cosmetics, and for softening rubber. Stearic acid is used to harden soaps, particularly those made with vegetable oil and makes up about 5% of the acids in Palm Oil. It is found in beef, lamb and pork, baking chocolate, shea nut and cocoa butter.



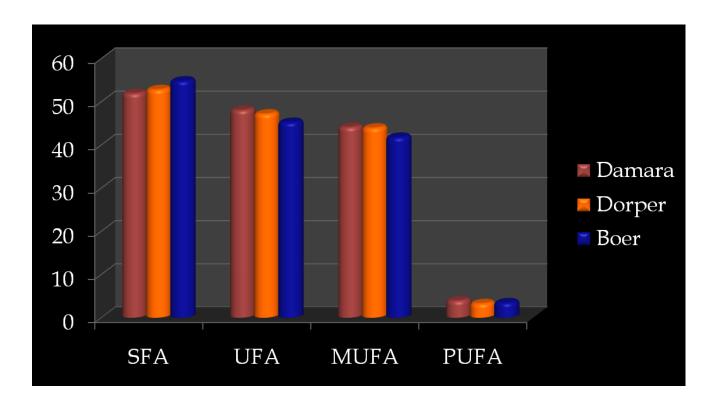
Named after Olive Oil in which it occurs in high quantities, is acknowledged as being one of the good fatty acids. Also occurs in high levels in Canola Oil, Sunflower Oil, avocados, hazelnuts, macadamia nuts, almonds, pecans and olives.



Linoleic acid is an Essential Fatty Acid or EFA (Omega 3 and Omega 6), a fatty acid that is essential to good health however, can not be produced by the body. It occurs primarily in fish (salmon), shellfish, flaxseed (linseed), hemp oil, soya oil, canola (rapeseed) oil, grapeseed oil, wheat germ oil, chia seeds, pumpkin seeds, sunflower seeds, leafy vegetables and walnuts.



Occurs primarily in seafood and was originally found in Cod Liver oil. Also found in high levels in eel, salmon, halibut, herring and in tofu.



SFA: Saturated Fatty Acids C13:0, C14:0, C15:0, C16:0, C17:0 and C18:0

MUFA: Monounsaturated Fatty Acids C16:1, C18:1 and C20:1

PUFA: Polyunsaturated Fatty Acids C18:3

UFA: Unsaturated Fatty Acids – MUFA and PUFA combined

The data provided here is evidence that the Dorper meat is as healthy as Boer meat and this is supported by recent research. The advantages of Dorper sheep over Boer goats are covered in a second presentation on Hair Sheep.

References and links:

http://www.nutritiondata.com/topics/fatty-acids

www.notrans.org

www.americanpalmoil.publications/16fats

www.foodstandards.gov.au

http://www.hsph.harvard.edu/nutritionsource/fats.html

"CARCASS AND MEAT QUALITY CHARACTERISTICS OF TWO SHEEP AND TWO GOAT BREEDS

PRODUCED UNDER EXTENSIVE FEEDING CONDITIONS."

P E Stydom(PhdD) & P Tshabala Animal Nutrition and Animal Products Institute, ARC, Private Bag X2,

Irene, 0062

FOOD AND CHEMICAL TECHNOLOGY

Volume 45, Issue 4, Pages 517-529

"Safety assessment of myristic acid as a food ingredient"

Authors: G.A. Burdock and I.G. Carabin

CLUNY LIVESTOCKEXPORTS



www.clunyexports.com

CLUNY LIVESTOCKEXPORTS

Please do not hesitate to contact Angus Macpherson if you have any questions.

Tel +61 2 8205 9617

Mobile +61 404 009343

Fax +61 2 8252 4701

Email: angus.macpherson@clunyexports.com

Website: <u>www.clunyexports.com</u>

Skype: angusmacpherson888