AUSTASIA ANIMAL PRODUCTS PTY LTD



SEPTEMBER 2022 ISSUE

WE ALL KNOW THAT GUT HEALTH IS A KEY TO OVERALL HEALTH AND PERFORMANCE. *

PROBIOTICS AS AN ALTERNATIVE

Due to the growing pressure of the global population, antibiotics have been administered as growth promoters to increase production by limiting the effects of pathogenic infection in dairy cattle. However, the non-therapeutic use of antibiotics in livestock diets was banned by the European Union in 2006 due to increasing safety concerns regarding antibiotic resistance, antibiotics release into the environment and the persistence of chemical residues in animal products.

As a result, probiotics have been developed as alternative feed additives to the prophylactic use of antibiotics. Probiotics are described as live microorganisms that, if administered in adequate amounts, promote gastrointestinal tract health, enhance dry matter intake, improve mucosal immunity, increase production performance, reduce methane production, and minimise energy loss in ruminants. <u>Read more...</u>



AAP Beef Culture with Liam Grantham

The Chinese put restrictions on the import of products in July 2020 many thought this was a form of trade barrier. China imposed the trade suspensions after reported COVID-19 cases in food establishments and insists on systematic testing of incoming product.

This study was published in journal in May this year and was funded by the WHO for those who are interested follow this link: *

https://journals.asm.org/doi/10.1128/aem.00504-22



Study finds 'concerning' survival of coronavirus on meat products

A new study has "concerning" results on how well SARS-CoV-2 surrogates survive on refrigerated and frozen meat products.

Conducted by Emily S. Bailey, Marina Curcic and Mark D. Sobsey, the research was published in the peer-reviewed journal Applied and Environmental Microbiology. It studied how well three SARS-CoV-2 surrogates survived on beef, pork, chicken, and salmon products that were refrigerated and frozen over a 30-day period.

Across that time, all the viruses survived "at high concentrations," although survival rates depended on food product and temperature. "But overall," the researchers wrote, "viruses survived for extended periods of time at high concentrations at both refrigerated and frozen temperatures."

The researchers concluded that virus' survival "emphasizes the need for rigorous and sustained food sanitation and hygiene in the harvest, transport, processing and distribution of these foods."

Areas of necessary sanitation, the researchers wrote, include food processing surfaces, worker hands and processing utensils such as knives.

"There is a need to better address the lack of or inadequate disinfection of these foods prior to meat packaging," the researchers added.

The benefit from mineral supplementation is well known, Kansas State University explains a few points for getting the best from your supplements. *

Mineral Nutrition for Grazing Beef Cows: Intake and Quality

First, and most important is mineral intake:

- Cows do not consume free choice mineral consistently throughout the summer grazing season. Some believe that cows will consume what they need, but that is not the case. Salt intake is the driving factor affecting mineral intake. If cattle are consuming significant amounts of salt in the forage, then they will decrease intake of high salt mineral and vice versa if they are consuming small amounts of salt in the forage. Adjusting the amount of salt in the mineral is the best way to regulate intake, and if plain white salt is provided, mix it with the mineral otherwise cattle will consume the salt instead of the mineral.
- Availability and location of clean water can also impact mineral intake. Mineral supplements generally have a high salt content, and cattle will want a drink after consuming mineral. And may stop consuming mineral sooner if water is not readily available. Placing mineral feeders relatively close to water sources can help if mineral intake is less than desired but having mineral feeders too close to loafing areas can result in overconsumption of mineral.
- The form mineral is provided can also affect intake. Cows will generally consume less mineral per day when in block form than in loose form just for the simple fact that the amount of mineral consumed per minute is lower with blocks. It is important to provide several blocks at once so multiple animals can consume mineral at the same time. Also, lower intake of mineral blocks means that the mineral concentration in the block should be increased accordingly.
- Individual cows also do not consume the same amount of mineral with some cows consuming less and some cows consuming more than desired. In a recent study at the USDA-ARS For Keogh Livestock & Range Research Laboratory, there was a 3-fold difference in mineral intake among cows in the herd. Currently, very little is known about the variability in mineral intake among cows and the reasons this variability exists. In this study there was no statistical difference in calf weaning weight or postpartum interval between cows consuming the most versus the least amount of mineral, but there appeared to be a linear trend that as cows consumed more mineral, calf weaning weight decreased. There could be several reasons for this that need to be explored before management strategies can be developed. <u>Read more...</u>



The world's first methane-reduced beef now in stores



In a unique pilot project between the biotechnology company Volta Greentech, the grocery chain Coop and the food company Protos, the world's first methanereduced beef is now being presented. From June 30, you can buy the meat in selected Coop stores.

Swedish Volta Greentech has developed a feed supplement for cattle based on the red alga species Asparagopsis that reduces these emissions. External studies where cows have been fed a methane-reducing feed have previously shown a maximum reduction of up to 80% during feeding.

In 2022, Volta Greentech together with the food company Protos and Coop started a pilot project on

Gotland, with the goal of bringing methane-reduced meat to the meat counters for the first time ever. Within the framework of the project, ten bulls on Ejmund's farm on Gotland have received algae as part of their daily feed for approximately three consecutive months before slaughter. In the study, different ways of feeding the animals were tested, and at most over 90% methane reduction was achieved, with an average for the period of around 80%. In addition, new methods were discovered during the study to smoothly integrate the feed into the farm's daily work, which will make it easier for more farms to implement the same solution in the future.

- This is a project that is really at the forefront of the field of foodtech and the transition to a more sustainable food chain. We look forward to being the first in the world to offer our customers and members a unique product in our stores and to continue supporting Swedish food production, says Charlotta Szczepanowski, head of sustainability and quality Coop Sweden.

- This collaboration shows that it is possible to greatly reduce methane emissions on Swedish farms, and that it is practically feasible. As a consumer, you will in future be able to actively choose products in the meat counter that are significantly better for the planet. In the coming years, our goal will be to try to take this out to as many Swedish farms as possible, as quickly as possible, says Fredrik Åkerman, CEO at Volta Greentech. <u>Read more...</u>



The only direct-fed microbial with extensive feedlot trial work that confirms: -

- Changes to gastrointestinal micro flora to improve intestinal health
- Inhibition of the growth of a wide range of gram-negative pathogens in the small intestine, it reduces faecal shedding by the animal which results in thinner, healthier gastrointestinal lining improving nutrient absorption and utilisation
- Improved immune system due to fewer gram-negative pathogens in the intestine and circulatory system
- Reduction of lactic acidosis incidence in feedlot cattle, reducing digestive disturbances and improving performance
- Increased ruminal pH by reducing acidity in the rumen thereby increasing fibre digestibility and nutrient utilisation
- Increased propionic acid production in the rumen allowing for more efficient partitioning of nutrients into meat

France bans 'meat' terms on plant-based products

(4 July, 2022)

France is the latest country to ban the use of meat names on plant-based food products, from October 2022. The move will supposedly prevent "consumer confusion" as meat analogs become more realistic. Domestic meat industry players and France's largest farming lobby supported the proposal and now celebrate the ruling. Meat names facing censorship on plant-based products include "sausage " "steak " "bacon " and "chicken " "Burger" is

Meat names facing censorship on plant-based products include "sausage," "steak," "bacon," and "chicken." "Burger" is exempt as it does not implicitly refer to one type of meat.



France is the first European Union member to impose restrictions of this kind. Only domestically-manufactured products will be subject to the labeling ban. All imports will remain uncensored.

"This law is going completely in the opposite direction of two official priorities of the French government: the fight against global warming and the reindustrialization of France." Nicholas Schweitzer, CEO of French vegan bacon innovator La Vie told *Plant Based News*. "Reducing meat consumption is clearly one of the keys to reducing our carbon footprint. Having alternatives that don't require any effort for meat consumers to adopt is helping in that regard. On the other hand, the fact that this law is only applicable to companies producing in France is complete nonsense. The only products penalized will be those produced locally." Read more...

It took the French Government 23 days to change their minds and it is reported that "ProVeg International", which aims to halve global consumption of animals by 2040, is delighted *

Vegan 'steak' on the back burner? France suspends ban on 'meaty' terms for plant-based products (27July, 2022) Read more...



An economical option for grain processing offering:

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- Improved physical form of flakes and reduced fines
- Reduced variability in grain moisture levels

The animal cells that are being cultivated by the company "Good Meat" are then sold as Meat. It's hard to accept that they're allowed to call this product meat. *

GOOD Meat Breaks Ground on Largest Cultivated Meat Facility in Asia

SINGAPORE --GOOD Meat, the cultivated meat division of Eat Just, Inc., a company that applies cutting-edge science and technology on a mission to create healthier, more sustainable foods, broke ground today on the largest cultivated meat production center in Asia. The complex, scheduled to open in Q1 2023 at JTC Bedok Food City, will have the capacity to produce tens of thousands of pounds of meat from cells, without the need to slaughter a single animal.

The buildout will house the single-largest bioreactor in the cultivated meat industry to date. Local production will help GOOD Meat meet growing consumer demand for its chicken products, which have been available for purchase in Singapore since December 2020. The facility will also be home to approximately 50 researchers, scientists and engineers.



GOOD Meat is creating a better way to make meat. We feed cells in a clean, sterile environment, mirroring how an animal grows. By only producing the meat we eat, GOOD Meat has a smaller impact on our planet and avoids slaughter, antibiotics or hormones.



Read more

Articles on Hormones in beef have been around for a long time but there are still a lot of consumers that don't understand or don't want to. *

Hormones in Beef: Myths vs. Facts

(SOURCE AMANDA BLAIR, PROFESSOR & SDSU EXTENSION MEAT SCIENCE SPECIALIST, COURTESY OF SDSU EXTENSION JUL 14, 2022)

Confusion and concern often surround the use of hormones in beef production. These "chemical messengers" are substances produced in the body that travel through the bloodstream to regulate body functions such as reproduction, metabolism, and growth. Hormones such as estrogens or androgens are often administered to growing cattle intended for slaughter to promote growth by complementing the effects of naturally occurring hormones. These growth-promoting hormones are generally administered to cattle in the form of small pellets, termed 'implants', that are placed under the skin in the animal's ear. The boost in growth rate created by hormone implants allows for cattle to be finished earlier thereby requiring less time on feed and fewer resources per pound of meat produced.

A common myth surrounding beef produced with additional hormones is that it is unsafe to consume. The fact is that the U.S. Food and Drug Administration regulates the development and use of hormone implants and the Food Safety Inspection Service of the USDA routinely monitors residues of synthetic hormones in meat.

Estrogenic Activity in Beef

It is true that beef from hormone-implanted cattle has increased estrogenic activity compared with non-implanted beef. This fact alone may alarm beef consumers, but it must be put into the context of actual amount consumed and the levels found in other products. As shown in Table 1, beef from a non-implanted steer contains 0.85 units of estrogenic activity per 3 oz. serving, while beef from an implanted steer contains 1.2 units of estrogenic activity in the same serving. However, this amount is a fraction of what is found in many other common foods. For example, the same quantity of eggs would provide 94 units of estrogenic activity and a 3 oz. serving of tofu would provide 19,306,004 units of estrogenic activity. In fact, a normal adult male produces 136,000 ng of estrogen per day while a non-pregnant woman produces 513,000 ng/day on average, making consumption of the levels of estrogen in implanted beef relatively inconsequential.

TABLE 1. ESTROGENIC ACTIVITY OF COMMON FOODS (NG/3 OZ SERVING)1

Food	Estrogenic Activity
Soy flour (defatted)	128,423,201
Tofu	19,306,004
Pinto beans	153,087
White bread	51,029
Peanuts	17,010
Eggs	94
Milk	5.4
Beef from implanted steer	1.2
Beef from non-implanted steer	0.85

1Units are nanograms of estrone plus estradiol for animal products and isoflavins for plant products per 3 oz of food.

Hoffman and Eversol (1986), Hartman et al. (1998), Shore and Shemesh (2003), USDA-ARS (2002). Adapted from: Loy, 2011

Guidelines for Consumers

It is also important to understand that there is no such thing as "hormone-free" beef. As stated above, hormones are naturally occurring and if they were eliminated completely from the body the animal could not survive. Therefore, any amount of beef (or any animal product for that matter) will have some level of naturally occurring hormone present. There are products available from beef that have not been administered additional hormones. Claims such as "no added hormones administered" or "raised without added hormones" may be approved for use on the label of beef products if sufficient documentation is provided to the USDA-Food Safety Inspection Service showing no hormones were used in raising the animals. Also, beef labeled "organic" is not administered implants and must adhere to the USDA guidelines for organic beef production. As implants reduce the cost of production consumers should expect to pay a premium for products carrying these labels.

More information about hormones in beef production is available at <u>Meat Mythcrushers</u>, as well as information about other common myths in the meat industry. <u>Read more...</u>

The cost of gain in the US is up and I expect that it will go higher with the drought conditions. *

Historical Perspective on Feedlot Cost of Gain

(Posted on June 15, 2022 by Jessica Jensen)

The most recent edition of the K-State Focus on Feedlots reported an average cost of gain of \$119.97/cwt. and \$134.44/cwt. for steers and heifers marketed in April, respectively. The average placed cost of gain was \$138.25/cwt. for steers and \$136.25/cwt. for heifers, with an average corn price of \$7.95/bu. These values have prompted many to ask if these values are the highest cost of gains and placed cost of gains we have seen?

The answer to that question is no, not yet. However, we are certainly getting close. The highest reported cost of gains for steers and heifers in the Focus on Feedlot data (Jan. 1990-present) occurred in March 2013 (\$133.72/cwt. for steers and \$136.76/cwt. for heifers). The graph below illustrates the reported cost of gain from 1990 to present. As the data in the graph illustrates, we have seen cost of gain values in excess of \$125/cwt. for both steers and heifers during the spring of



2013.

Len's Graphs







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