

PAGES INCLUDING COVER PAGE _____

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TO: FAX:

FROM: DICK KRENGEL WBF FEEDS FAX 707-795-6915

RE: METHIONINE TAP REVIEW 5/21/01

I'll go line by line and send the line by line copy to you in case you don't have one.

Line 13 – The supply of –Has this been researched and proven? There are numerous problems with natural ingredients because of preservatives, GMO status and supply. We strongly disagree, because we have researched the available ingredients and find very little other than 2500 tons of sunflower meal, the possibility of organic corn gluten meal if corn sweetener sales materialize and funds to complete the plants are available.

Unfortunately, there are no reliable statistics on organic feed production and we can't determine the demand for the sunflower. The suppliers tell us that most has been sold on long term contracts.

Line 14 – This is not a correct statement in that a part of sustainable Ag should be the conservation of resources.

Line 16 – a veiled reference to the preference for small farmers who raise small no's seasonally. Whole systems in their opinion are grain raised on the same farm and fed to their own animals. We cycle nitrogen by supplying manure to rice farmers. No dumping in creeks, no raw manure,

Line 29 – the assumption is made that overfeeding protein will encourage the planting of organic crops. Conservation of resources will enable more people to buy the organic animals and thus encourage more organic acres.

Line 30 “ Other natural...” No data has been presented to convince the Organic Feed suppliers that this is true. We are not against using the alternative sources because they generally contribute nutrients or growth factors not found in soybeans and corn. A good example is corn gluten meal, which contributes methionine at high levels. and xanthophylls, which produce the yellow color in eggs and broilers. Consumers don't want light colored eggs or –“pale broilers”. Many oilseed meals are the byproduct of crushing for oil. If you feed the oilseeds in the noncrushed state, you may have unbalanced rations with excess energy that can cause poor growth and nutritional abnormalities.

Line 35 – Chickens grew in the wild, but never produced more than was needed for replacement and meals for predators. The movement to confined operations came because it resulted in reduced mortality and the eggs could be collected with less labor.

Line 39-42 the writer assumed that "Excess nitrogen " is a problem in a sustainable-farmed operation where birds are confined for a part of their life. Chickens need to be housed for at least 3-4 weeks to allow for proper feather development. Releasing birds outdoors prior to proper feather development is inhumane.

Line 164-167 CCOF permits the use of amino acids in the USA.

Line 176-188 this is how the author interpreted the statement. Correspondence from Lovisolo reads (I would think so" in answer to the question" Is your understanding that these (synthetic amino acids) would be included in the general prohibition of any synthetically derived feedstuffs/nutritional supplement?" The Codex statement reads"Synthetic nitrogen or non-protein nitrogen compounds shall not be used." Codex Alimentarius Commission has proposed this language, but it is not in effect. Footnote 1 states the generally accepted definition from American Feed Control Officials(AFFCO) for non-protein nitrogen sources.

Line 235 No statistical information or source supports this statement.

Line 286 The diets in this were synthetic and devoid of Vitamin B6. Normal rations will contain the levels required to metabolize normal levels of sulfur amino acids. Most poultry rations are supplement with additional Vitamin B6

Line 290 There are constant revisions to the tables of nutrient composition. Most feed companies that employ nutritionists or consultants have their own data or participate in nationwide annual amino acid surveys conduct by amino acid suppliers.

Line 312 "lower animal densities" create other problems in confinement during the first 3-4 weeks of the growing cycle. We rely on body heat from the birds to maintain to proper temperature in the house. Reducing the number per birds increases the demand for fossil fuel. It may be possible to brood chickens with minimal fossil fuel in the summer, but it is imperative that the correct temperature be maintained or the birds will and smother one another or huddle and not eat.

Line 333 – Birds are pasture are not free of disease challenges and the development of a strong immune system is crucial. NO scientific data was presented to support this statement.

Line 340 "Enteritis....." Birds raised on bare ground with overwhelming bacteria loads may be what Titus was referring to. NO data is given to support he statement "Well managed pasture....."

Line 350 –The word supplementation needs defining. We are unable to find the Morrison's (1951), but the entire paragraph should be read and analyzed.(a copy was found) **Grain and protein should be fed according to Morrison. Synthetic amino acids were not produced at that time except for those intended for research purposes.**

Line 351 – Success is measured in many ways. Keeping birds alive without regard to the environment or their humane treatment could be one measure of success. NO doubt, you can raise poultry without supplemental amino acids and no ingredients that are high in methionine. but what are the consequences?

Line 374 – The author neglected to mention that supplemental synthetic amino acids were used in these experiments.

Line 376 –Alfalfa meal is a medium protein, high fiber and low energy feedstuffs with saponins that cause wet litter when used at levels above 2.5 % of the diet. It is available as organic feedstuffs and easily is handled in a conventional feed mill.

Line421-Emzyme treatment.... Is the data available and to what degree was amino acid availability improved?

Line425-449 Should the reviewer supply this information instead of _OMRI____-?

Line477- Corn and soybean meal are the major ingredients in conventional diets, however ingredients such as rice bran, corn gluten meal, meat meal, safflower meal, sunflower meal, canola meal and poultry byproduct meal and fish meal are used. The market determines which ingredients are used depending upon supply and demand.

Line542 Is the reviewer referring to organic corn gluten meal

Line 571-579 there is a legitimate question regarding FFE's and could be examined.

Line 581 It probably is best to start on what each controls and do our part rather than attempt to correct the whole system.

Line670 Is there something wrong with improving feed utilization as part of sustainable agriculture? The only argument presented throughout the review is the perceived effect on organic crop production.

Line 614 There are no data or market surveys presented to support this statement.

Line 628 If outdated tables are used this might be true. Most tables that used are either developed from literature searches, analysis of incoming ingredients, and participation in nationwide analysis of corn conducted annually or in-house assays.

Line 630 This is an interesting observation, but where is the supporting data?

Line 656 Is this supported by data?

Line 660 The difficulty is not with grain (barley, oats or wheat) but with protein sources that can be supported by letters from suppliers or the names and addresses of suppliers for contact by the reviewer. Wheat or barley can be fed as a portion of the grain in the diet, but when used to excess, enteritis can be problem because these grains contain starches that slow the passage of feed in the gut.

Line 738 Synthetics are permitted where necessary.

Line 744 No disagreement with the statement, except the natural feedstuffs necessary to supply the additional methionine must be available as organic or non_GMO ingredients.

GENERAL COMMENTS

1. Lack of supporting data for the statements about ingredient availability, the improved retention of nitrogen on pasture and the nutrient contribution from insects and earthworms on pasture.
2. The system proposed favors small operations.
3. On page 9 , line 425-449. Would be better if the reviewer were to draw his or her own conclusions?
4. There are references to the probability of environmental damage occurring during the manufacture of methionine. Has anyone checked with either the manufacturers or EPA to determine whether there have any occurrences?

Growth Promoters

Dick Krengel

From: Mark_Jackson@Degussa-Huls.com
Sent: Thursday, May 31, 2001 6:55 AM
To: dick@petalumapoultry.com
Subject: growth promotors

Dick, I searched the internet for growth promotors. Supplemental methionine was not found in any list of growth promotors. In feed additive lists, DL methionine is characterized as an essential amino acid for growth. A growth promotor physiologically stimulates growth by non-nutritional means. Growth promotors are almost always non-nutritional. An exception is copper sulfate. Copper sulfate is a nutritional supplement at very low levels and becomes a growth promotor at levels of 10X the requirement and higher. DL methionine is not used for purposes other than it's nutritional requirement in poultry.

The fact that DL methionine cannot be found on any list of growth promotors might be the best evidence that it is definitely not a growth promotor.

Methionine - Chemical Process

Dick Kregel

From: Mark_Jackson@Degussa-Huls.com
Sent: Monday, June 04, 2001 7:16 AM
To: toni.strother2@usda.gov
Cc: dick@petalumapoultry.com
Subject: NOSB Meeting



NOSB_june 2001.doc

Dear MS Strother

I am a poultry nutritionist currently working for the Degussa Corporation, a manufacturer of supplemental methionine and other animal feed additives. I have some comments which I would like considered at the National Organic Standards Board meeting on Wednesday, June 6, 2001.

- 1) Acrolein: On Lines 241-243, the TAP review states that acrolein is extremely toxic and an extreme irritant. Degussa has not had a reportable acrolein release since our plant's inception in 1992. We have also never had a reported exposure to an employee, which would be expected with a very small release. Acrolein production in Degussa is a highly specialized process and is subject to the Maximum Achievable Control technology regulations. Degussa controls the emissions from the acrolein process in a manner that exceeds the U.S. EPA MACT requirements. The production, storage and use is tightly controlled and monitored and is subject to routine periodic monitoring reports submitted to regulators. Any unpermitted release would immediately be reported to authorities.
- 2) Methyl mercaptain: On Lines 239-240, the TAP review describes this methyl mercaptain highly reactive and can inflame causing toxic vapors. Again, we have never had a reported toxic release or exposure injury in 24 years of its use. The EPA would be notified if there was a release of the above compounds.
Methyl mercaptain use in Degussa is a highly specialized process and is subject to the Maximum Achievable Control technology regulations. Degussa controls the emissions from the Methyl mercaptain process in a manner that exceeds the U.S. EPA MACT requirements. The storage and use is tightly controlled and monitored and is subject to routine periodic monitoring reports submitted to regulators. Any unpermitted release would immediately be reported to authorities.
- 3) HCN: On Lines 245-250, the TAP review states that hydrogen cyanide (HCN) is highly toxic and manufacture of HCN is a significant source of atmospheric cyanide. The manufacture of DL methionine accounts for approximately 5% of the HCN produced, worldwide. It is used in many other industries including plastics. EPA regulations have restricted HCN release dramatically in recent years. Between 1995 and 2000, there has been a 95% reduction in HCN release in our Mobile plant. Material released is passed through an enclosed thermal oxidizer which destroys 99.99% of the HCN before it enters the atmosphere. HCN production in Degussa is a highly specialized process and will be subject to the source specific Maximum Achievable Control technology regulations. Degussa controls the emissions from the HCN process in a manner that exceeds the U.S. EPA MACT requirements. The production, storage and use is tightly controlled and monitored and is subject to routine monitoring. Any unpermitted release would immediately be reported to authorities. Degussa uses the most sophisticated storage and monitoring available. An uncontrolled release of HCN is highly improbable.
The statement made in the TAP review on Lines 235-236 that "several of the feedstocks are likely to result in ruptured storage tanks, leaking chemicals, and release to the environment" is not correct. If DL methionine is not used in diets, increased nitrogen excretion of approximately 39% in poultry operations will certainly result in increased nitrogen run-off in lakes and streams and increased ammonia released into the atmosphere.

I faxed a letter to Mr. Keith Jones dealing with some nutrition and nitrogen excretion issues that I would also like to be addressed at the meeting. Please find this letter attached.

Please respond that you received this Email and let me know if you have any questions or comments.

Sincerely, Mark Jackson, Ph.D.
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(See attached file: NOSB june 2001.doc)