

ADVISORY COMMITTEE ON ANIMAL FEEDINGSTUFFS

73rd Meeting of ACAF on 14 June 2017

SCOPING PAPER ON OVER-SUPPLEMENTATION OF FEED ADDITIVES

The Committee is asked to:

- a) consider and comment on the above proposed actions to help enforcers and industry understand and mitigate issues associated with over-supplementation of feed additives; and
- b) suggest any other areas to be considered.

In addition, the Committee may wish to consider if it requires any further information to help it consider the above points.

ACAF Secretariat

May 2017

Scoping paper:

Feed Additives – over-supplementation.

Purpose:

1. This paper considers the issue of over-supplementation of feed additives and how to disseminate good practice to all relevant parties that have an influence in contributing to over-supplementation.

2. The aim is :
 - to protect the integrity of the animal and human food chains and to avert any unnecessary expense to farmers; and

 - to secure better animal health (i.e. through a balanced diet)

Background:

3. At its 22 September 2010 meeting, an official from the Animal and Plant Health Agency (formerly the Veterinary Laboratories Agency (VLA)) and representatives from industry provided the Committee with a presentation on copper supplementation in feed for cattle. The purpose of the presentation was to inform the Committee of concerns of what appears to be excessive supplementation of copper in the diet of dairy cows and seek its agreement on the preparation of a Code of Practice for the industry, which could be further developed for farmers and vets. Following the presentation and the Committee's discussion the ACAF Secretary noting the Committee's lengthy discussion on this issue, including the potential of possibly working with other Committees, suggested that other Government Departments would have an interest in this subject. He agreed to pursue this topic with other relevant interested parties. Additionally, in liaison with the VLA, the Committee should also pursue production of advice in the form of either a code of practice or leaflet.

4. Further discussions on this issue took place at the Committee's meetings held between December 2010 and September 2011. Additionally, a meeting with relevant stakeholders took place on 2 June 2011. Following this latter meeting, a guidance note on copper supplementation for bovine cattle was published on the ACAF website (see Annex).

5. At the Committee's October 2016 meeting the issue was raised again by Geoff Brown who sought the views of the Committee on the need to communicate

with different sectors of the feed industry on the importance of compliance with maximum permitted levels (MPLs) set for trace elements and feed additives in general. Mr Brown detailed the issues of potential over-supplementation of animals through multiple feed sources (e.g. forage, compound feed, boluses and drenches etc.). Mr Brown expressed concern at the scale of non-compliance of products, such as those which exceed MPLs even when used on their own, or products with inadequate labelling, with some internet sales also adding to the challenge of compliance. The Committee agreed that this was an important issue and that it could develop several work strands to help mitigate any potential risks.

6. At the Committee's February 2017 meeting, Members were informed that following the presentation by Mr Brown at its October 2016 meeting, Committee Members were asked for views on ways to communicate with feed industry sectors to emphasise the importance of compliance with MPLs set for trace elements in feed. Based on the responses received, it was clear that an industry guidance document would be beneficial. It was therefore proposed that a multifaceted approach was required and that a short, medium and long-term strategy should be adopted that would help to change behaviours in maintaining compliance, involving relevant industry bodies and local authorities.

Proposed Action:

7. Subject to the Committee's views it is proposed that the following steps are taken:
 - identify all relevant parties involved;
 - establish a working group which will be predominantly constituted by industry representatives with facilitation provided by the FSA;
 - the working group will need to formulate terms of reference; develop and implement a strategy with prioritisation of actions over a short, medium and long-term basis; with defined key milestones, to address the issue of over-supplementation;
 - potential key areas to address include:
 - avoidance of exceeding MPLs; products on the market which are not legally compliant (i.e. containing un-authorized additives; exceeding MPLs in their own right; incorrectly labelled),
 - products being offered on the internet without adequate detail to allow a considered choice; 'grey area' products whose legal status is not clear; and
 - the use of overt unauthorised claims.

- the strategy will aim to map out the communication process; appropriate methods of intervention and by whom; and how the interventions will be delivered; and
 - the working group will also develop and implement a methodology for evaluating the success in achieving the aims of the strategy.
8. It is proposed that the working group will periodically report back to ACAF with details of tracking and progress, eventually providing ACAF with a final report including an evaluation of the interventions delivered and making appropriate recommendations.
 9. Subject to the Committee's agreement it is envisaged that the working group will be established and meet towards the end of summer 2017, with an initial update at the October 2017 meeting.

Action by the Committee:

10. The Committee is asked to:

- a) consider and comment on the above proposed actions to help enforcers and industry understand and mitigate issues associated with over-supplementation of feed additives; and
- b) suggest any other areas to be considered.

11. In addition, the Committee may wish to consider if it requires any further information to help it consider the above points.

ACAF Secretariat

May 2017

Annex

Guidance Note for Supplementing Copper to Bovines

You are encouraged to discuss this guidance with your veterinary and nutritional advisers.

This leaflet aims to outline some practical advice on the use of copper in feed for bovines on farms in the UK.

INTRODUCTION

Background

Copper is an essential trace element for animals. Copper toxicity resulting from over-supplementation is becoming a more common condition in cattle, especially dairy cows. While there may be several sources of copper in the diet that individually are not in excess, together they can cause copper toxicity. This has prompted an industry-led working group to investigate the causes of copper toxicity in cattle. There is some uncertainty regarding the incidence of copper over-supplementation in dairy cattle. Nevertheless, the aim of the guidance note is to provide clear and practical advice about copper supplementation and associated legislative requirements.

Maximum Permitted Level (MPL) of copper in cattle feed

EU Regulation 1831/2003 on additives in animal feed sets the MPL for copper in cattle feed at 35 mg/kg (ppm) at 88% dry matter (DM), which equates to 40 mg/kg on a dry matter basis. Supplementation at levels greater than this can only be undertaken after a full risk assessment and by written prescription by the veterinary surgeon responsible for the animals. The MPL is based on the complete feed and should include inputs from complementary feedingstuffs such as boluses or licks, but does not include input from water.

COPPER REQUIREMENTS – FACTORS TO CONSIDER

Copper uptake from the diet

The uptake of copper by ruminants is variable.

- Antagonists such as sulphur, iron and molybdenum can reduce copper availability to varying degrees. Soil, certain diets and water may all contain antagonists.
- Estimating copper availability in the presence of antagonists has largely relied on calculations derived from sheep experiments extrapolated to cattle. Use of these models should be minimised to avoid confusion and to reduce the risk of inadvertent over supply.
- Organic forms of copper may have different bioavailabilities than inorganic forms therefore consideration should be given to the form of copper used.

Nutritional requirement of copper in cattle

- Under normal conditions, and in the absence of significant antagonists, total copper in the total ration should typically be 20 mg/kg DM.

Managing copper supplementation

Copper supplementation should be managed by farmers, nutritional advisers and vets on a case by case basis.

Consideration of age and pregnancy status

Young calves are more susceptible to copper poisoning than adult cows. Pregnant cows divert copper to the foetus. Copper supplements must be used with care with pregnant cows in order to avoid excessive copper levels in calves.

GUIDANCE

- The need for copper supplementation of cattle should be regularly assessed in consultation with the farmer, veterinary and nutritional adviser.
- Copper inputs from all applicable sources (e.g. grass, forages, compounds, straights, mineral powders, mineral blocks, mineral buckets, boluses, injections and water supply) should be estimated as accurately as possible to ensure that, in total, there is no excess.
- Under normal conditions, and in the absence of significant antagonists, copper concentration in the total ration should typically be formulated to 20 mg/kg DM.
- If there is any doubt about the dietary trace element input, feeds (including pasture and forage) should be analysed.
- Feed analysis reports should not report estimated copper “availability” levels. The concentrations of copper antagonists should be measured and individually reported.
- If all interested parties agree that it is necessary to exceed 20 mg/kg DM of copper in the total ration (but not exceed the statutory limit), supplementation levels should be fully considered and the course of action agreed.
- Before prescribing copper supplementation which will bring the copper concentration in the total ration to more than 40 mg/kg DM, a full risk assessment should be carried out by a veterinarian.
- Supplementation action plans should be regularly reviewed to assess effectiveness and outcome.

Endorsed by:



Compiled by Peter Bone (Telsol Ltd), Jo Payne (AHVLA) & John Twigge (Frank Wright Trouw Nutrition International)

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