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**Technical guidelines for efficacy studies of feed material and
feed additive in livestock and poultry target animal**

饲料原料和饲料添加剂畜禽靶动物有效性评价试验技术指南

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Foreword

This instructional document has been drafted in accordance with the rules given in GB/T 1.1-2009. This Guidance Document is proposed and managed by the National Feed Industry Standardization Technical Committee (SAC/TC76). The drafting of this technical guidance document. National Feed Review Committee, China Agricultural University. The main drafters of this technical paper. Wang Liwen, Ding Jian, Zhang Liying, Du Wei, Wu Yubo, Gong Limin, Tong Jianming, Wu Hui. Feed ingredients and feed additives livestock and poultry Effectiveness Evaluation Test Technical Guide

1 Scope

This guiding technical document specifies the basic principles, the types of study, the test substance, the design of the study protocol, the conduct of the study, the study report and the requirements on the filing of records for studies evaluating the efficacy of feed materials and feed additives in livestock and poultry target animals. This guiding technical document applies to studies evaluating the efficacy of feed materials and feed additives whose target animals are livestock and poultry.

This Guidance Document sets forth the basic principles for the evaluation of the effectiveness of feed animal and animal feed animal feed additives and test additives Type, test substance, test program design, test implementation, test reports and data archiving requirements. This guideline is applicable to the evaluation of the effectiveness of feedstuffs and feed additives based on livestock and poultry.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1 Target animal targetanimal Specific animal feed ingredients or feed additives.

2.2 Test substance testsubstance Samples of feed ingredients or feed additives evaluated.

2.3 Long-term effectiveness evaluation test long-termefficacystudy Close to the actual production conditions, in order to be able to represent the target animal feed stage suitable for the trial period, by observing the target animal Production performance, physiological and biochemical indicators, health status, evaluation of the specific application stage of the test substance feeding effect test.

2.4 Short-term effectiveness evaluation test short-termefficacystudy In a relatively short period of time can test the specific efficacy of the test substance, including but not limited to bioavailability test, bioequivalence test, In vivo digestion test, balance test, palatability test.

2.5 Bioavailability The active substance or its metabolites in the test substance are absorbed, transported to the target tissue or target cells and exhibit a typical function or effect.

2.6 Bioequivalence bioequivalence Both subjects have the same biological function or effect on the target animal.

2.7 In vivo digestion test invivodigestionstudy By determining the target animal intake of certain nutrients or energy and excreted manure, and then evaluate the nutrients or energy in animal digestion Road within the degree of digestion and absorption test.

2.8 Balance test By measuring and comparing the target animal intake of certain nutrients or energy and the relationship between emissions, and then evaluate the nutrients or can

The amount of intake, excretion and volume balance between the body of the test.

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