

Research Progress on Application of Alfalfa Meal in Pig Production

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As one kind of high quality feed with rich nutrients and high quality dietary fiber, alfalfa has been widely used in the production of ruminant livestock. As the understanding of alfalfa becomes more and more comprehensive, it is found that the high quality dietary fiber in alfalfa could have a certain physiological effect on pigs, which could stimulate the peristalsis, improve the activity of digestive enzymes, promote the colonization of beneficial bacteria in the intestinal tract of pigs, and produce short-chain fatty acids to improve the health condition of pigs, thus enhancing the production performance of pigs. It was found that adding alfalfa meal to the diet of gestating sows reduced constipation, enhanced satiety, reduced abnormal behavior, and improved reproductive performance; adding alfalfa meal to the diet of piglets improved growth performance, reduced intestinal inflammatory response, enhanced intestinal barrier function and reduced diarrhea; adding alfalfa meal to the diet of growing-fattening pigs improved production performance and pork quality. And, the mechanism of alfalfa exerting its physiological effects in pig mainly through improving intestinal health, enhancing the antioxidant and immune system. Therefore, alfalfa could be used as pig feed ingredient to alleviate various problems in the pig industry and to improve pig production performance. This review details the current application of alfalfa in pigs and the potential mechanisms of alfalfa to improve growth and reproductive performance, pork quality, as well as intestinal health, laying the foundation for the application of forage of high quality in pig production.

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