Journal of Obesity & Weight Loss Therapy
ISSN: 2165-7904

Keywords: Ractopamine hydrochloride; Livestock growth; Heavyweight animals; Handling response; Transportation; Animal welfare

Introduction

Ractopamine hydrochloride (RH) is a beta-adrenergic agonist commonly used in livestock production to enhance growth performance by promoting lean muscle deposition and reducing fat content in meat animals [1]. is feed additive has been particularly popular in the management of heavyweight livestock such as pigs and cattle, where achieving optimal growth rates is critical for e cient meat production. Despite its widespread use and documented bene ts in enhancing feed e ciency and carcass composition, concerns have been raised regarding its potential impacts on animal welfare and stress responses during handling and transportation.

Heavyweight livestock, due to their larger size and weight, o en present unique challenges during handling and transport operations [2]. ese challenges can include increased stress levels, greater susceptibility to injuries, and di culties in managing their behaviour e ectively. e administration of RH to these animals further complicates the situation, as the physiological and behavioural e ects

Results and Discussion

Livestock supplemented with ractopamine hydrochloride (RH) exhibited signi cantly higher average daily weight gain compared to the control group. Feed conversion ratios were improved in the RH-treated group, indicating enhanced feed e ciency and utilization [8]. Animals in the RH-supplemented group displayed increased agitation and restlessness during handling procedures compared to controls. Behavioural indicators such as vocalization and escape attempts were more frequent in RH-treated animals. RH supplementation was associated with elevated heart rate and cortisol levels in response to