

Concentration of Partial VFA and Methane Production of Beef Cattle Rument Fluid which Red Dragon Fruit Skin (*Hylocereus costaricensis*) and Guava Leaf (*Psidium guajava* L.) in Ammoniated Rice Straw Based Ration

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Author Order	2 of 3
Accreditation	2
Abstract	<p>The research aimed to examine the effect of red dragon fruit skin and guava leaves supplemented into beef cattle feed on the concentration of partial VFA and methane gas production. The in vitro study was conducted in a completely randomized design (CRD) with 3 treatments, namely P0: 50 % concentrate + 50 % ammoniated straw (Control), P1: 50 % concentrate + 50 % ammoniated straw + 5 % red dragon fruit skin flour, and P2: 50 % concentrate + 50 % ammonia straw + 5 % red dragon fruit skin flour + 2.5 % guava leaf flour. The concentrate consisted of 2 parts of rice bran and 1 part of coconut meal. The ratio of concentrat and ammoniated rice straw was 50:50. Each treatment was repeated 6 times. The results showed that the concentration of acetic acid, butyrate and methane gas decreased while the concentration of propionate increased with the addition of red dragon fruit and guava leaves. The research concluded that the addition of 5 % red dragon fruit skin flour combined with 2.5 % guava leaves flour in beef cattle feed could further reduce the concentration of acetic acid, butyric acid and the production of methane gas, but increase the concentration of propionic acid. It is suggested that defaunated agents of red dragon fruit skin and guava leaves could reduce the production of methane gas in the rumen of beef cattle.</p>
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