**Description**

**Title of Invention: Sample – Mathematical Equation**

[0001] $\left(x+a\right)^{n}=\sum\_{k=0}^{n}\left(\genfrac{}{}{0pt}{}{n}{k}\right)x^{k}a^{n-k}$

**Technical Field**

[0002] **The following paragraph contains a mathematical equation inserted through MS-Word 2007 manually.**

[0003] $e^{x}=1+\frac{x}{1!}+\frac{x^{2}}{2!}+\frac{x^{3}}{3!}+…, -\infty <x<\infty $

**Background Art**

[0004] The present invention is directed to animal feeds, and particularly to animal feed extenders, animal feed supplements and animal feed toppings for ruminants and monogastric animals, said animal feeds, animal feed extenders, animal feed supplements and animal feed toppings comprising xylan or galactoglucomannan or mixtures thereof.

[0005] **The following paragraph contains another mathematical equation.**

[0006] $\sin(α)\pm \sin(β)=2\sin(\frac{1}{2}\left(α\pm β\right))\cos(\frac{1}{2}\left(α\mp β\right))$

**Detailed Description of Invention**

[0007] It was surprisingly found that certain polymeric pentoses and hexoses, namely xylan and galactoglucomannan are particularly suitable as components in animal feeds and animal feed compositions, as animal feed extenders and supplements and toppings or components thereof, for ruminants and monogastric animals. Said xylan and galactoglucomannan preferably originate from woodspecies. Particularly ruminants and monogastric animals, such as hoofed animals, goats and sheep are adapted to digest highly fibrous plant material as energy and protein source.

[0008] Here is another mathematical equation.

[0009] $f\left(x\right)=a\_{0}+\sum\_{n=1}^{\infty }\left(a\_{n}\cos(\frac{nπx}{L})+b\_{n}\sin(\frac{nπx}{L})\right)$

**Claims**

1. Please note that this section has been created for testing purpose**.**

**Abstract**

The present invention relates to animal feed compositions comprising hemicellulose selected from xylan and galactoglucomannan and mixtures thereof, particularly for ruminants and monogastric animals. The invention also relates to the use of hemicellulose selected form xylan and galactoglucomannan and mixtures thereof as a component in animal feeds, in animal feed compositions, as animal feed supplements, as animal feed extenders or as components therein.

$$a^{2}+b^{2}=c^{2}$$

Here is another mathematical eqn.

$$\lim\_{n\to \infty }\left(1+\frac{1}{n}\right)^{n}$$