

## XTRACT® Ruminants upper values by Pancosma

### Feed evaluation and protein requirement systems for ruminants



When feed additives are known and proved to improve the animal production, there is a formulator interest to assign nutritional values to these additives. Several nutritional feeding systems exist. Among them, 2 major systems are represented:

- **NRC system:** The most widely used worldwide. It was released by the National Research Council (NRC: 2001) Dairy Sub-Committee. It defines nutrient requirements of dairy & beef cattle.
- **The Inra system:** This system is a French-based nutritional evaluation program. It is mainly used by French and South European ruminant formulators (e.g.: Portugal, Spain...).

The energy and protein values are additional tools facilitating the use of the additive and with 2 major objectives: To reformulate the diet, or to add extra performance by using the additive on-top of the formulation.

### Energy and protein evaluation for dairy cattle formulation with XTRACT® Ruminant (X60-7065) additive

Calculations have been based on production performance out of the following trials reports: Technical Bulletin 711, Technical Bulletin 725 and 08XT-TS16, when feeding an average of 1 g/ hd /d of X60-7065 product to dairy cows.

Based on these references, the corresponding energy and protein values were calculated per kg of XTRACT® Ruminant. They can be used either to reformulate & to reduce feed costs or, on-top, to guarantee + 2 kg/day of milk, without affecting the milk quality.

	For NRC system	For INRA System
<b>Energy Value</b>	<u>&gt;&gt; 1016 Mcal NE<sub>L</sub> /kg XTRACT®</u>	<u>&gt;&gt; 590 UFL/kg XTRACT®</u>
<b>Protein Value</b>	<u>&gt;&gt; 127 095 g CP /kg of XTRACT®</u> <i>For RDP and RUP values, please refer to Pancosma Research News N° 58 (edited on Oct. 2014)</i>	<u>PDIE = 200 000 g/kg XTRACT®</u> <u>PDIN = 40 000 g/kg XTRACT®</u>



## Energy and protein evaluation for beef cattle formulation with XTRACT® Ruminant (X60-7065) additive

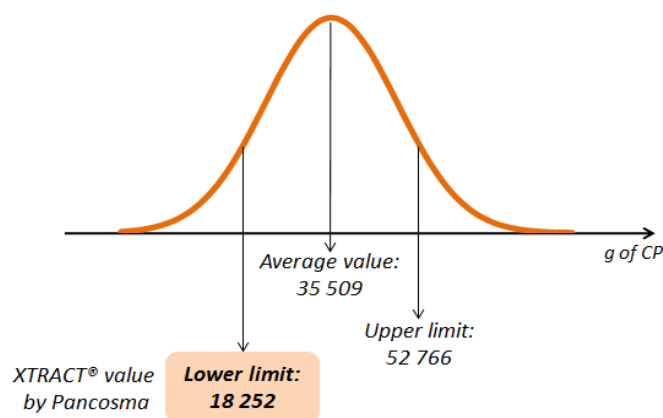
A similar approach was used for beef cattle. The meta-analysis of Pancosma (Bravo, Doane et al; 2009) was used as a reference to determine the average increase in daily gain (+ 0.04 kg/ hd /d) when feeding an average of 1 g/ hd /d of X60-7065 product to beef cattle. The energy and protein values were attributed per kg of XTRACT® Ruminant.

	<b>NRC system</b>	<b>INRA System</b>
<b>Energy Value</b>	<b>&gt;&gt; 312 Mcal ME/kg XTRACT®</b>	<b>&gt;&gt; 149 UFC/kg XTRACT®</b>
<b>Protein Value</b>	<b>&gt;&gt; 18 252* g CP /kg of XTRACT®</b> <i>For RDP and RUP values, please refer to Pancosma Research News N° 58 (edited on Oct. 2014)</i>	<b>PDIE = 83 989 g/kg XTRACT®</b> <b>PDIN = 17 060 g/kg XTRACT®</b>

### Consistency of the Pancosma approach: A maximum of confidence!

A very conservative method, integrating a solid set of information, was used by our specialists to estimate these values. The final proposed values will reflect the production performance and guarantee a minimum of **confidence of 90 %**.

E.g.: The opposite figure represents the distribution of the results of the 13 trials considered for the beef cattle evaluation (\*example of crude protein). Pancosma selected the lower limit, giving this min. 90% confidence.



Although slight changes may occur when estimated in different conditions (intake level, physiological stage, breed, sex...), these differences may not be significant. It should also be emphasized that the response is NOT linear, mainly at doses higher than recommended. Therefore, the values should not be used as a means to calculate the optimal dose. All calculations have been conducted with the recommended dose of XTRACT® Ruminant, and these recommendations should be followed.

## Pancosma: Get a maximum effect from our additives !

More information in Pancosma Research News N°58 / 2014

