

# Atlantic Poultry Research Institute

## APRI FACTS



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### NAKED OATS AS A FEEDSTUFF FOR ROASTER CHICKENS

#### Industry Impact

The nutrient content of traditional oats is low because the indigestible hull surrounding the oats' kernel dilutes the nutrient density, therefore limiting the use of oats in poultry feeds. However, the breeding and development of a naked (hull-less) oat (*Avena nuda* L.) in Canada, particularly at Agriculture Canada in Ottawa has introduced to the feed market a new cultivar. Harvested naked oats have only 4-5% hull material compared with 27-28% in traditional oats. Naked oats have a similar energy value (3400 kcal ME/kg) as corn (3350 kcal ME/kg) but naked oats has a higher protein content (15.8%) than corn (8.5%). The high nutrient content of naked oats raises the possibility that this grain may have the potential to partially replace corn and to a lesser extent protein sources in poultry diets and achieve increased economic returns. This is potentially advantageous in regions such as Atlantic Canada where large scale production of corn is not feasible but oats is a viable crop.

#### Trial

At the Nova Scotia Agricultural College, naked oats ('Tibor' cv.) were incorporated into grower and finisher roaster chicken diets at levels of 18%, 36%, 54% and 72%. Table 1 gives the particulars of these diets.

Table 1: Diet Composition

Age (days)	Diet	ME (kcal/kg)	CP (%)
21-49	Grower	3100	20
50-64	Finisher	3250	16



#### Results

Level of naked oats did not affect 64-day body weights (Table 2, Figure 1), 21-64 day feed efficiency ratios (Table 2, Figure 2) or 21-64 day feed consumption rates (Table 2).

**Table 2: Growth Performance**

	Level of Naked Oats (%)			
	18	36	54	72
Body Weight (kg/bird)	3.80	3.85	3.74	3.73
Feed Consumed (kg/bird)	7.49	7.75	7.35	7.40
Feed Efficiency (feed/gain/bird)	2.55	2.52	2.45	2.52

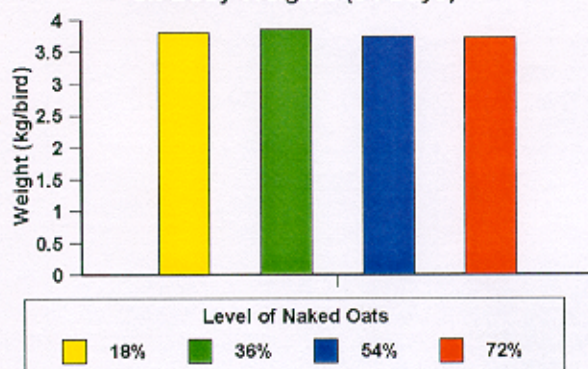
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### Conclusion

Depending on economic circumstances, naked oats could to a large extent partially replace corn and to a lesser extent soybean meal in roaster chicken diets.

**Figure 1. Effect of Naked Oats on Body Weights (64 Days)**



**Figure 2. Effect of Naked Oats on Feed Efficiency (21-64 Days)**

