

LOWER THE CARBON FOOTPRINT OF PET FOOD BY UP TO 47% WITH CANADIAN PEAS

Canadian peas deliver high-quality protein, starch and fiber to support complete, balanced dog food formulations. New research shows they also bring a measurable sustainability advantage — reducing the carbon footprint of dry dog food by up to 47%.



THE STUDY

Pulse Canada commissioned an independent **ISO-compliant Life Cycle Assessment (LCA)** to evaluate the environmental impact of reformulating dry dog food with Canadian peas.

- **Scope:** Cradle-to-manufacturer gate — from farm through food production
- **Functional Unit:** 25 lbs of dry dog food
- **Diets:** Four formulations were evaluated with consistent protein, fat, fibre and energy and all meeting the Association of American Feed Control Officials (AAFCO) minimum recommendations for macronutrients for adult dogs at maintenance
- **Locations:** Environmental impact was evaluated for two different Canadian locations: Acheson, Alberta and Bolton, Ontario



FORMULATIONS TESTED

Ingredient composition and nutritional profiles of test diets. All formulations were developed by an independent, PhD pet food nutritionist to meet AAFCO recommendations.

	Traditional	Inclusion of Whole Peas	Plant-Based with Pea Protein & Whole Peas	Insect-Based with Whole Peas
Ingredients	Percent (%)			
Beet (sugar) – pulp, dried	16.00	7.50	6.00	3.80
Black soldier fly larvae meal	0.00	0.00	0.00	17.00
Corn whole grain	49.00	36.50	31.00	31.50
Corn gluten meal	0.00	0.00	10.00	16.50
Vegetable oil*	0.00	0.00	12.46	6.96
Poultry by-product meal, feed grade low ash	19.50	12.00	0.00	0.00
Chicken meal	6.00	6.00	0.00	0.00
Poultry fat	9.46	9.96	0.00	0.00
Lentil	0.00	7.00	0.00	0.00
Peas	0.00	9.00	10.00	10.00
Pea flour	0.00	12.00	12.50	14.20
Pea protein	0.00	0.00	18.00	0.00
Salt	1.50×10^{-2}	1.50×10^{-2}	1.50×10^{-2}	1.50×10^{-2}
Vitamin premix	1.50×10^{-2}	1.50×10^{-2}	1.50×10^{-2}	1.50×10^{-2}
Mineral premix	1.50×10^{-2}	1.50×10^{-2}	1.50×10^{-2}	1.50×10^{-2}
Nutritional Profile				
Energy (ME kcal/kg)	4125	4176	4220	4204
Crude protein	24	24	24	24
Crude fat	18	18	18	18
Crude fibre	4	4	4	4

*Reformulations used soybean oil or canola oil

THE RESULTS

- **Up to 47% Lower Carbon Footprint**

Reformulating with Canadian peas reduced climate impacts by as much as 47% compared to the traditional formulation.

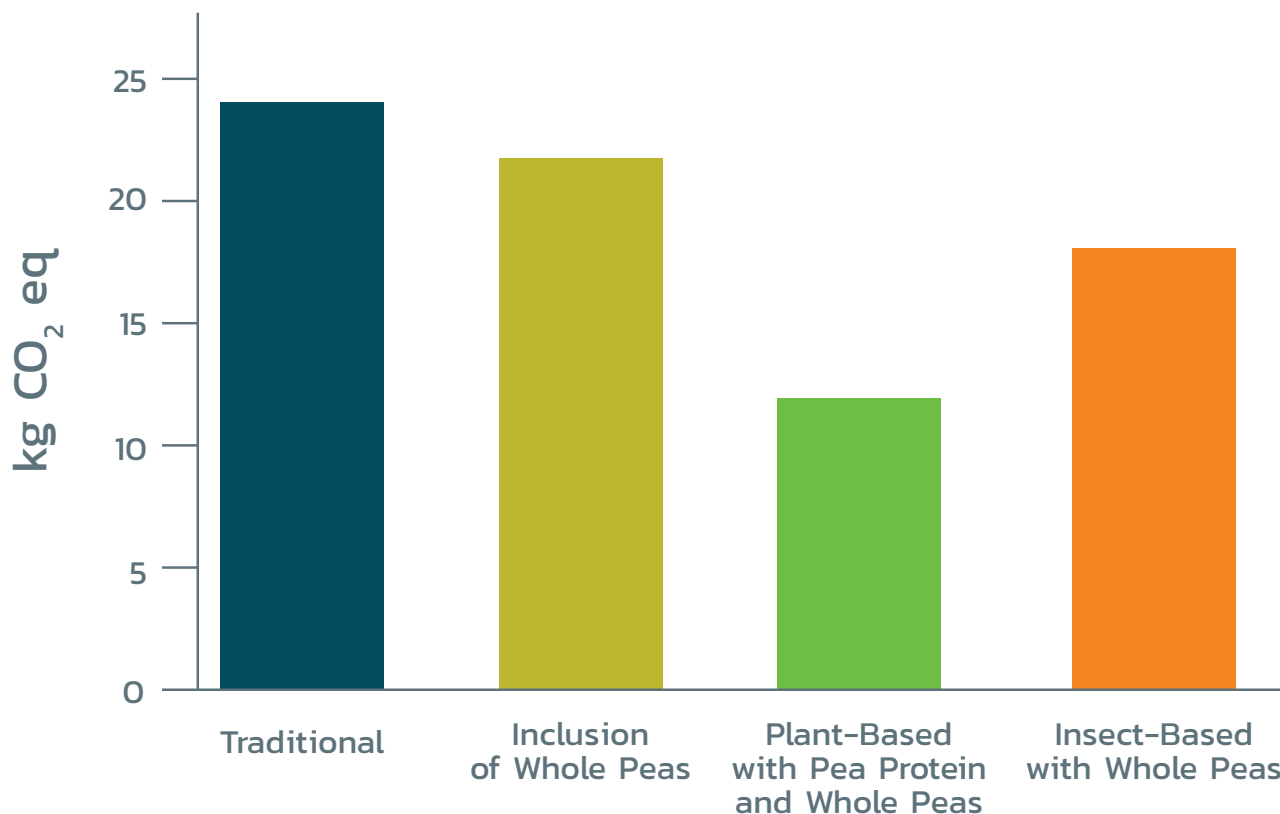
- **Consistent Reductions**

Every pea-inclusive formulation evaluated lowered climate impacts compared to the baseline food.

- **Nutrition Maintained**

All diets achieved consistent nutritional profiles and met **AAFCO minimum recommendations** for protein, energy, fibre, and fat for adult dogs at maintenance.

Carbon footprint of reformulated dry dog foods



READY TO GET CANADIAN PEAS WORKING FOR YOU?



Consistent Supply

Canada is one of the world's largest pea exporters, already shipping more than 2 million metric tonnes to countries around the world annually



Flexible Shipment Sizes

Shipments are available in both bulk vessels and container sizes to meet your needs



Connect with Pulse Canada

To learn more about the study or how to leverage Canadian peas in your formulations

