

# Alpha Resources, Inc. Certificate Of Analysis

**AR 2018  
ALFALFA STANDARD  
LOT # 41901**

**DRIED BASIS VALUES**

**Feed Analysis**

% Fat	2.8 +/- 0.25
% Crude Fiber	20.3 +/- 1.2
% Carbon	45.15 +/- 0.1
% Hydrogen	5.83 +/- 0.03
% Nitrogen	4.13 +/- 0.15

**AS BOTTLED VALUES**

**Ultimate Analysis**

% Carbon	42.96 +/- 0.1
% Hydrogen	5.54 +/- 0.03
% Nitrogen	3.78 +/- 0.1
% Sulfur	0.30 +/- 0.02
% Moisture	4.86

**AS BOTTLED VALUES**

**Mineral Analysis**

% Calcium	2.19 +/- 0.1
% Magnesium	0.34 +/- 0.02
% Phosphorous	0.32 +/- 0.02

**Mineral Analysis**

% Potassium	1.99 +/- 0.11
% Sodium	0.04

PPM Boron	50 +/- 3
PPM Iron	353 +/- 20
PPM Zinc	23.5 +/- 2.5

PPM Copper	11.5 +/- 1.0
PPM Manganese	52 +/- 3
PPM Aluminum	227 +/- 50

The following procedures and standards were employed in the analysis of the above standard:

Preparation.....	AOAC 935.13A	Total Nitrogen.....	AOAC 968.06
Crude Fiber.....	AOAC 962.09	Crude Fat.....	AOAC 920.39
Mineral Analysis.....	ICP/AES – AOAC 975.03	NIST SRM.....	1547 Peach Leaves

Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall alpha resources be liable for incidental or consequential damages.

This is a certified reference material (CRM) and is traceable to the above-mentioned NIST standard. For good laboratory practice, we at Alpha Resources Incorporated, recommend that all secondary standards be verified and documented prior to use.

**EXPIRATION DATE**

**THIS CRM IS VALID FOR TWO YEARS FROM THE DATE OF PURCHASE WHICH  
APPEARS ON THE BOTTLE  
CERTIFIED JUNE 2001**

*Kent Dyer*