

FEED SUPPLEMENT

POWDER



NUTREX  
CURRENT NUTRITION TECHNOLOGY EXPONENTS

**CHROMIUM AMINOACID CHELATE**

Maximum Bioavailability Chromium  
Supplement

## BIOAVAILABILITY, ABSORBABILITY AND STABILITY COMBINED!

**CHROMIUM** is the primary component of the **Glucose Tolerance Factor (GTF)**, present in the blood and cell walls as **insulin receptor**, with the primary function of facilitating the transport of glucose, aminoacids and fatty acids from blood into the cell, and in activating enzymes and maintaining stability of nucleic/genetic particles

**GTF** is in a chelate form composed of **chromium + 3 amino acids -glycine, cysteine and glutamic acid**

**CHROMIUM AMINOACID CHELATE** is a 4th generation chelate utilizing a proprietary 3 stage chelation process using the final blood form aminoacid ligands - glycine, cystine and glutamic acid

The 3 stage process assures

- A) complete chelation and stability of bond,
- B) non-reactivity to other organic acids,
- C) unparalleled bioavailability,
- D) shortest loading period - <15 days for results to be generated

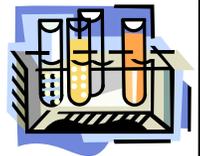
### CHROMIUM AMINOACID CHELATE

unequaled bioavailability 30%-400% more bioavailable than other chromium forms

highly water soluble and very stable (non-reactive to other organic acids/materials)

faster loading period (<15 days)

most economical



### CONTENTS

Chromium amino acid chelate

as concentrate 2% ( 20,000mg bioavailable Cr/kg)

as premix 0.04% (400mg bioavailable Cr/kg )

Carrier calcium carbonate *q.s. ad* 1 kg

### RECOMMENDED USE AND DOSAGE

**200ppb in feed**

**as Concentrate - blend down to 0.04% premix**  
**as Premix - 1/2kg/ton of feed**

PACKAGING 25 kg pe lined box

A Performance Enhancing Nutritional Product of:

**AGRIaccess**

Bothell WA 98012 USA

[www.agriaccess.com](http://www.agriaccess.com)

## EFFECT ON MUSCULATURE AND FAT DEPOSITION

Increased uptake of glucose, amino acids and other metabolites by muscle cells as a result of chromium induced insulin sensitivity initiates improved cellular activity and growth. Thus, muscle fibers tend to increase in size and mass. The increased cellular uptake of glucose also directly reduces the amount of energy bearing nutrients circulating in the blood, resulting to reduced conversion by the liver of excess energy into fat and the eventual decrease in fat deposition.

## EFFECT ON REPRODUCTIVE FUNCTION

Chromium induced insulin sensitivity has been shown to exert effect on the brain level by increasing the frequency of luteinizing hormone release, which in turn improves ovarian follicular maturation and increased ovulation rate. Production and release of progesterone by the corpus luteal cells are also increased, helping improve embryo attachment to the uterus ensuring survival and proper maintenance of the fetuses to term.

## SUMMARY DATA ON EFFECTS OF CHROMIUM SUPPLEMENTATION

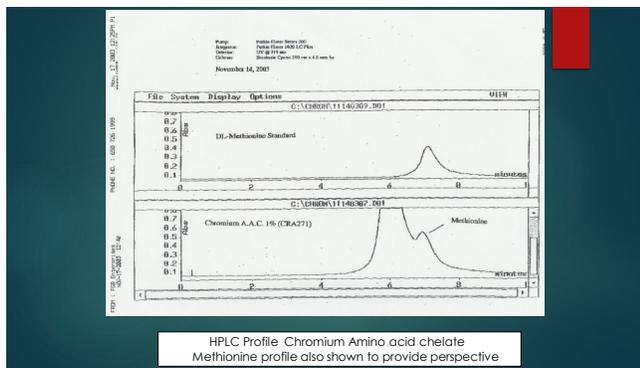
Available data reveal that 200 ppb of active, bioavailable chromium supplementation supports:

### REPRODUCTIVE

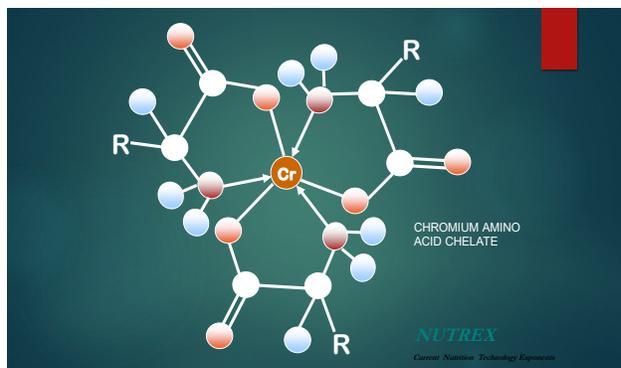
- \* Absolute improvement of 13% in farrowing rate
- \* Absolute improvements of 0.7-1 pig/sow/yr
- \* Improvement in boar semen and quality
- \* Improvement up to 2 pigs born alive/litter
- \* Significant reduction in culling percentage
- \* Increased egg mass and prolonged peaking in layers

### MUSCULATURE AND LEANNESS

- \* Positive reduction in backfat
- \* Positive increase in loin eye area
- \* Positive increase in carcass protein
- \* Positive improvement in dressing percentage
- \* Improvement in FCR



HPLC profile—a concrete proof of complete chelation and organic character



Chromium amino acid chelate is a true chelate with coordinate covalent bonds

### COMPARATIVE ABSORBABILITIES OF DIFFERENT CHROMIUM FORMS (5,6,7)

Chromium amino acid chelate	>90%
Chromium picolinate/methionine	>60%
Chromium yeast	<25%
Chromium complex	<20%
Chromium chloride (inorg.)	very poor (0.5%)

Most recent study by Lindemann, et.al. (1999 and 2008), comparing the 4 chromium chelate forms - tripicolinate, propionate, methionine and yeast, indicated that at doses 200ppb and 400ppb requires a loading period of at least 6 months, and that a dose of **5,000mcg** of chromium/kg of feed (**25 times the recommended dose**) is needed to show more immediate significant impact on growth and feeding performance.