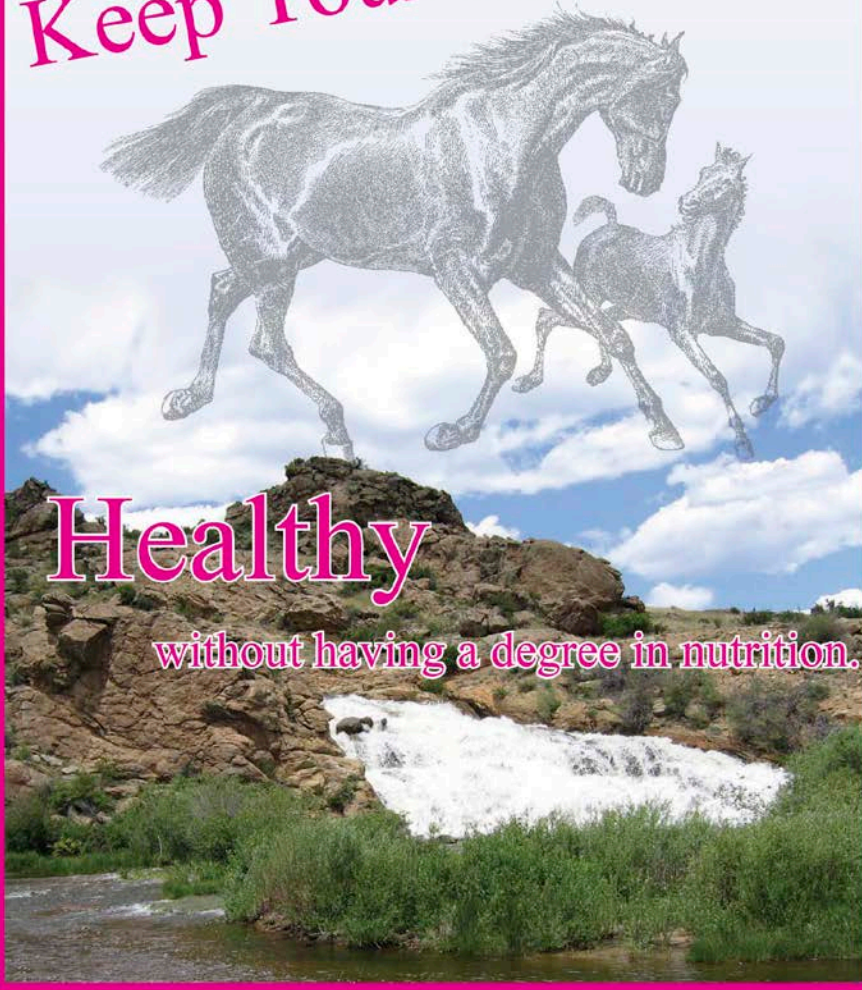


# A.B.C.'s G.R.P.<sup>TM</sup>

Addressing negative effects of GMOs

## Keep Your Horse



## Are you ready for the effects of **GMO's** in your Horse Feed?

- Reduced nutrient quality
- Allergies
- Reproduction failure: toxic to testicular cells, sperm, and sperm function.
- Reduced growth and development
- Reduced skeletal development
- Neurological effects



# A.B.C.'s G.R.P.<sup>TM</sup>

## Glyphosate Remediation<sup>TM</sup> Product

### Breaking a Grid-Locked Intestinal Environment

### Nutritional Supplement for all Classes of Horses

#### GUARANTEED ANALYSIS

Crude Protein (min)..... 14.5 %  
 Crude Fat (min)..... 2.5 %  
 Crude Fiber (max)..... 7.0 %

Calcium (Ca) (min)..... 1.7 %  
 Calcium (Ca) (max)..... 2.2 %  
 Phosphorous (P) (min)..... 1.0 %

#### Store in a cool, dry place.

Copper (Cu) (min)..... 50 PPM  
 Zinc (Zn) (min)..... 300 PPM  
 Vitamin A (min)..... 50,000 IU/LB

#### INGREDIENTS:

Lactobacillus Acidophilus Fermentation Product, Reed Sedge Peat, Monosodium Phosphate, Magnesium Oxide, Sodium Sulfate, Manganous Oxide, Folic Acid, Niacin, Choline Chloride, Biotin, Riboflavin, Vitamin A Acetate, Vitamin B12, Vitamin D3, Natural Source of Vitamin E (d-alpha-tocopheryl acetate), Calcium Pantothenate, Ethylenediamine Dihydriodide, Beta Carotene, Pyridoxine Hydrochloride, Ascorbic Acid, Yeast Culture, Thiamine Mononitrate, Organic Dried Kelp, Zinc Amino Acid Complex, Salt, Manganese Amino Acid Complex, Potassium Chloride, Attapulgitic Clay, Organic Fabaceae, Organic Poaceae, Organic Grape Seed Extract, Organic Lecithin, Organic Flax Meal, Organic Aloe Vera Juice, Calcium Carbonate, Citric Acid, Copper Sulfate Pentahydrate, Zinc Sulfate Monohydrate, Manganese Sulfate, Organic Garlic, Organic Sugar, Potassium Citrate, Calcium Sulfate, Magnesium Sulfate, Organic Germanium, Organic Tomato Powder, Organic Sources used (Orange Peel Powder, Cayenne Pepper, Dandelion Root, Dandelion, Cloves, Sage, Peppermint, Fennel, Hops, Parsley, Thyme, Lemon Grass, Elder Flowers, Gentian Root, Chamomile Flowers, Licorice, Basil, Yarrow, Oat Straw, Caledula Flowers, Bilberry, Cleavers, Milk Thistle, Irish Moss, Pennyroyal, Black Cohosh, Blood Root Seeds, Blue Violet Leaf, Buckthorn, Marshmallow, Papaya, Peach, Primrose, Psyllium, Chickweed, Juniper Berries, Pleurisy Root, Red Clover, Red Raspberry, Slippery Elm Bark, Valerian Root, Cinnamon, Comfrey Root, Comflowers, Horseradish, Barley, Flax, Seed, and Ginger) for Organic Water Extracts using Fermentation Aids, Organic Oat Groats, Yucca Schidigera Whole Plant Product, Organic Gelatin, Zinc Sulfate, Yeast, Organic Rice Bran, Organic Apple Cider Vinegar, Bentonite, Dicalcium Phosphate, Potassium Magnesium Sulfate, Grain Alcohol, Potassium Iodide, Diatomaceous Earth, Natural Antioxidant, Cobalt Carbonate, Organic Olive Oil, Coral Calcium, Ester C, Hydrolyzed Coconut and Palm Kernel Oil, Condensed Organic Grain Fermentation Solubles with Organic D.U.A.<sup>TM</sup> Media, Distilled Water, Copper Sulfate, Hydrogen Peroxide, Sodium Hydroxide, Inositol, Olive Leaf Extract, Mushroom Extract, Lactobacillus Acidophilus, Lactobacillus Caesi, Bifidobacterium Longum, Bifidobacterium Thermophilum, Bifidobacterium Bifidum, Enterococcus Faecium, Pantothenic Acid, Thiamine, Sodium Bicarbonate, Yeast Extract, Potassium Carbonate, Condensed Cultured Whey, Iron Fumerate, Zinc Gluconate, Calcium Ascorbate, Manganese Ascorbate, Potassium Amino Acid Chelate, Calcium Amino Acid Chelate, Magnesium Amino Acid Chelate, L-Lysine, Glycine, Pyridoxine (HCL), Dried Aspergillus Fermentation Soluble, Organic Dextrose.

#### DAILY TOP DRESS FEEDING INSTRUCTIONS per HORSE:

- 🐾 Gestating Mares: 4 ounces or 2 scoops per day (114g)
- 🐾 Lactating Mares: 4 ounces or 2 scoops per day (114g)
- 🐾 Weanlings: 4 ounces or 2 scoops per day (114g)
- 🐾 Yearlings: 4 ounces or 2 scoops per day (114g)
- 🐾 Aged Horses: 4 to 8 ounces or 2 to 4 scoops per day (114g to 228g)
- 🐾 Adult Horses: 4 ounces or 2 scoops per day (114g)
- 🐾 Stallions: 4 ounces or 2 scoops per day (114g)
- 🐾 Horses in Training: 4 ounces or 2 scoops per day (114g)

#### Manufactured for:

Advanced Biological Concepts,

P.O. Box 27 • Osco, Illinois 61274-0027

(USA) 800-373-5971 • (Local) 309-522-5505 • (Fax) 888-770-0735

jgh@a-b-c-plus.com • www.abcpus.biz

PD829-6

# A196

**Net Weight 25 Pounds (11.36 kg) (100 day supply)**

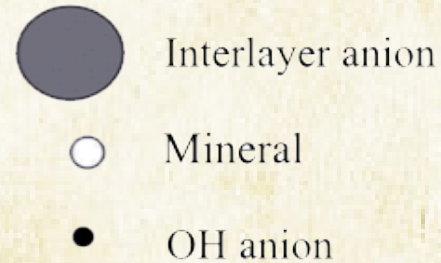
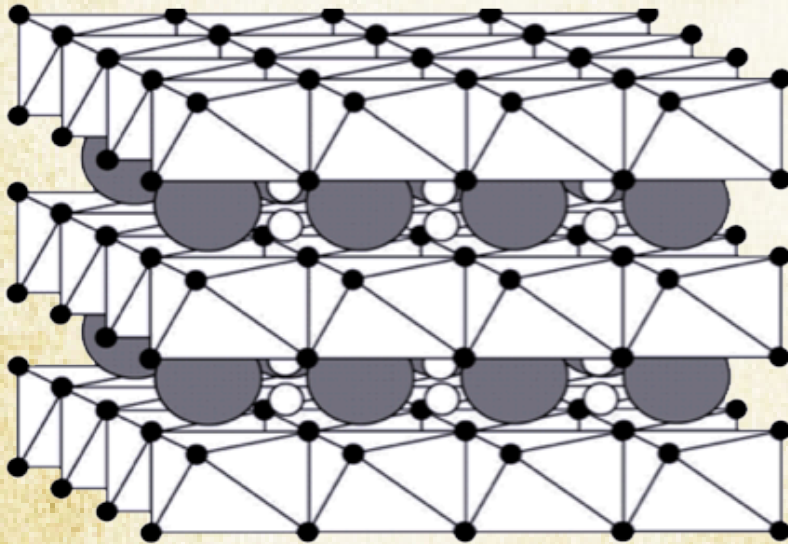
*Disclaimer: Advanced Biological Concepts® accepts no responsibility for the performance, failure or misuse of this product or changes of protocol that we are not aware of.*



**Due to negative health and performance issues in horses consuming GMO feedstuffs, Advanced Biological Concepts® has released A.B.C.'s G.R.P.<sup>TM</sup> with Glyphosate Remediation Technology.<sup>TM</sup>**

# Glyphosate Matrix

This is a visual concept not the molecular structure.



**The inter-layer anion captures the cation mineral, rendering it useless.**

**A Chelator Molecule**

**Glyphosate ties up:** Manganese (Mn), Potassium (K), Selenium (Se), Magnesium (Mg), Calcium (Ca), Nitrogen (N), Copper (Cu), Nickel (Ni), Iron (Fe), Cobalt (Co), Zinc (Zn)

**“According to USDA scientist Robert Kremer, found a 500% increase in Fusarium root infection of Round Up Ready soybeans when glyphosate is applied.”**



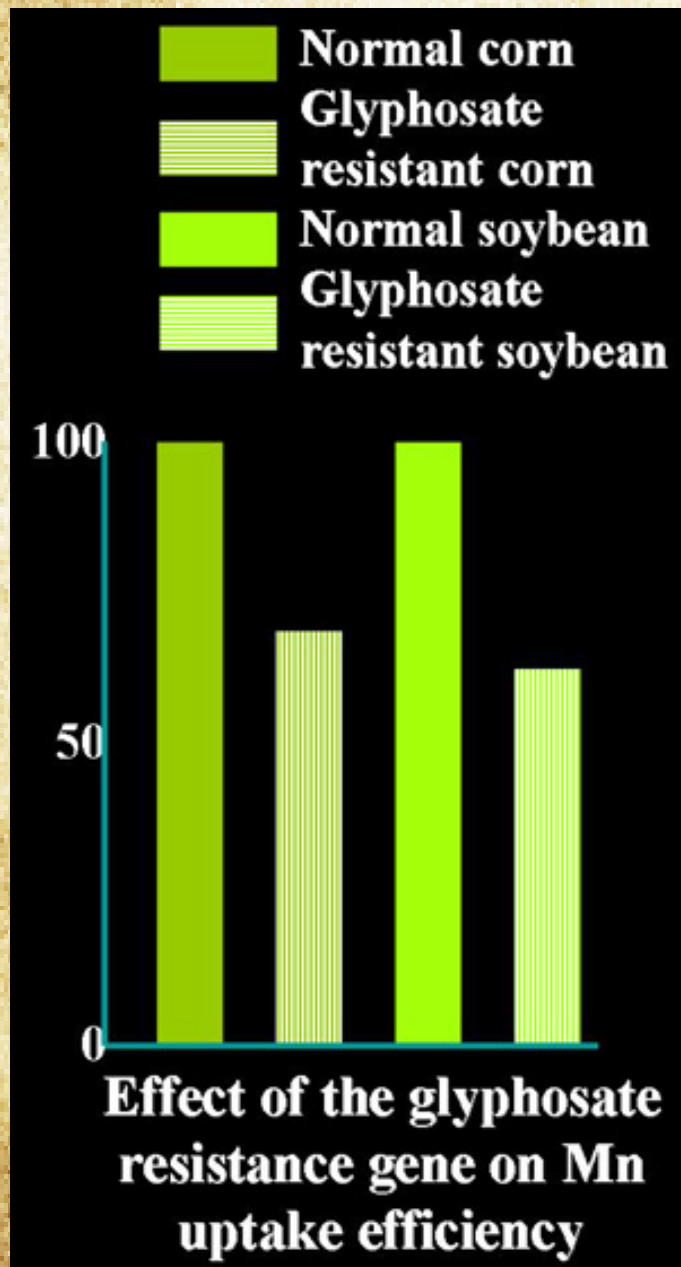
**Glyphosate suppresses natural disease controls and promotes soil-borne disease organisms, such as Fusarium, as seen in the petri dish example.**

**Third year alfalfa, second cutting analysis;  
Glyphosate applied one time in the previous year.**

**% Reduction in Alfalfa Nutrients by Glyphosate\***

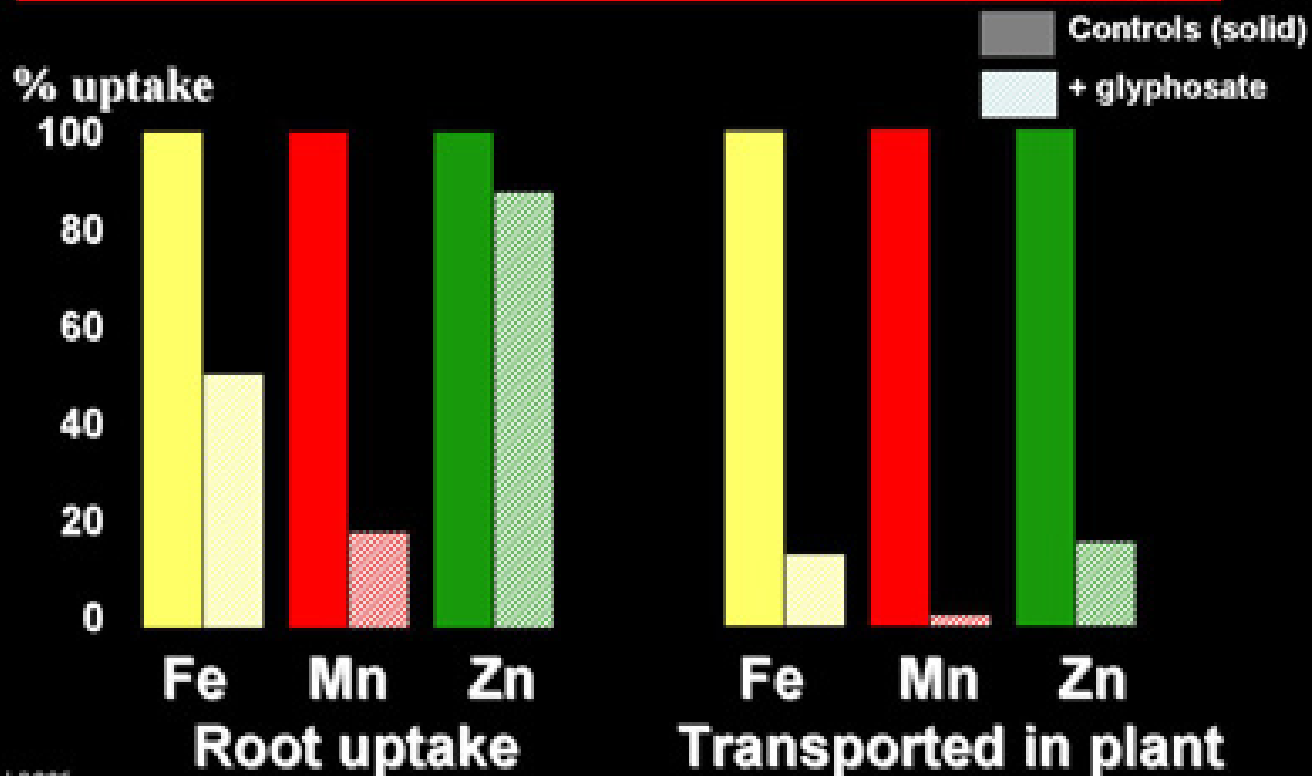
<b>Nutrient</b>	<b>% reduction compared with Non-RR</b>
<b>Nitrogen</b>	<b>13 %</b>
<b>Phosphorus</b>	<b>15 %</b>
<b>Potassium</b>	<b>46 %</b>
<b>Calcium</b>	<b>17 %</b>
<b>Magnesium</b>	<b>26 %</b>
<b>Sulfur</b>	<b>52 %</b>
<b>Boron</b>	<b>18 %</b>
<b>Copper</b>	<b>20 %</b>
<b>Iron</b>	<b>49 %</b>
<b>Manganese</b>	<b>31 %</b>
<b>Zinc</b>	<b>18 %</b>

**\*Third year, second cutting analysis; Glyphosate applied one time in the previous year**



**Just the presence of the RR gene results in reduced mineral uptake in GMO corn and soybean plants.**

**At less than ½ oz of glyphosate per acre (1/40<sup>th</sup> of recommended rate), root uptake and transport of iron (Fe), Manganese (Mn), and zinc (Zn), are substantially reduced**

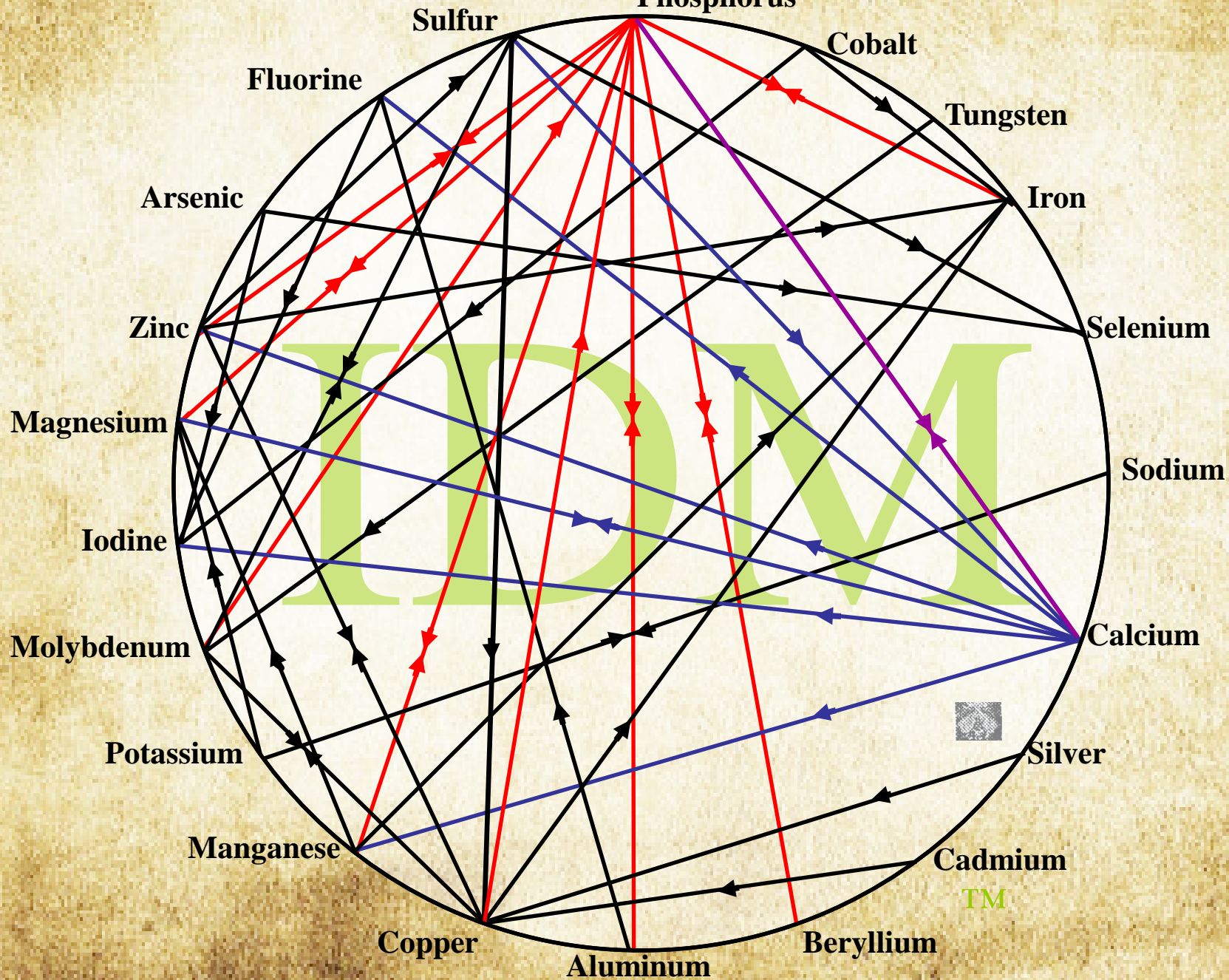


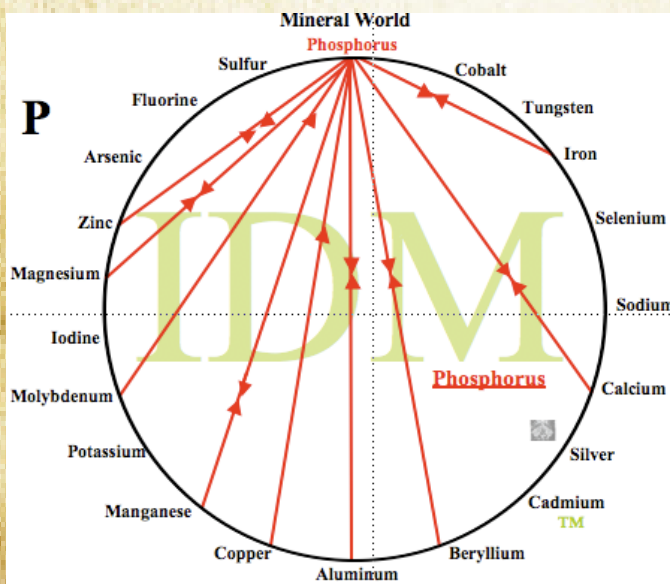
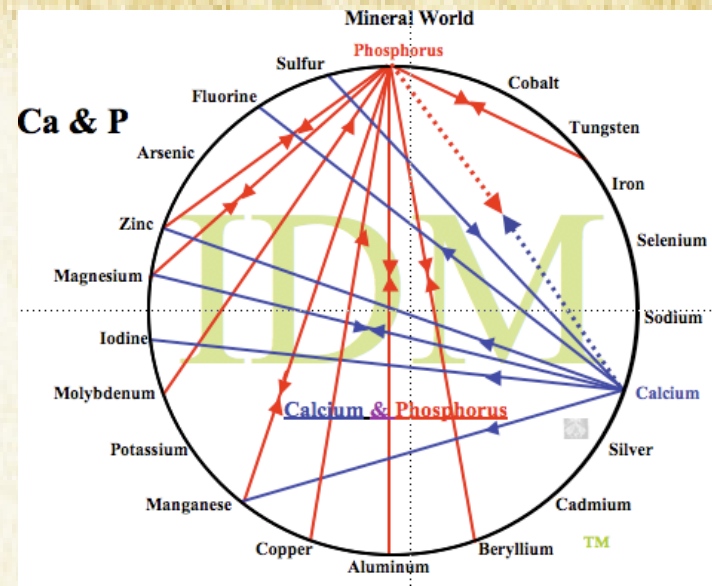
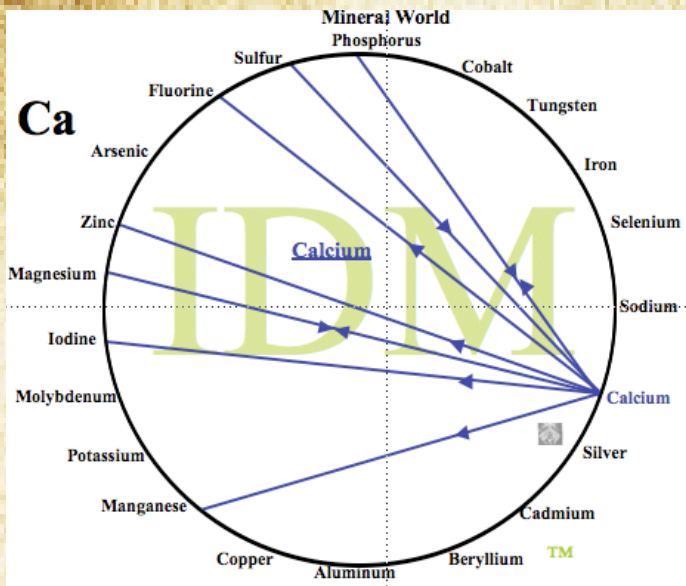
Eker, et al 2006  
J. Agric. Food Chem

# **The Mineral World**



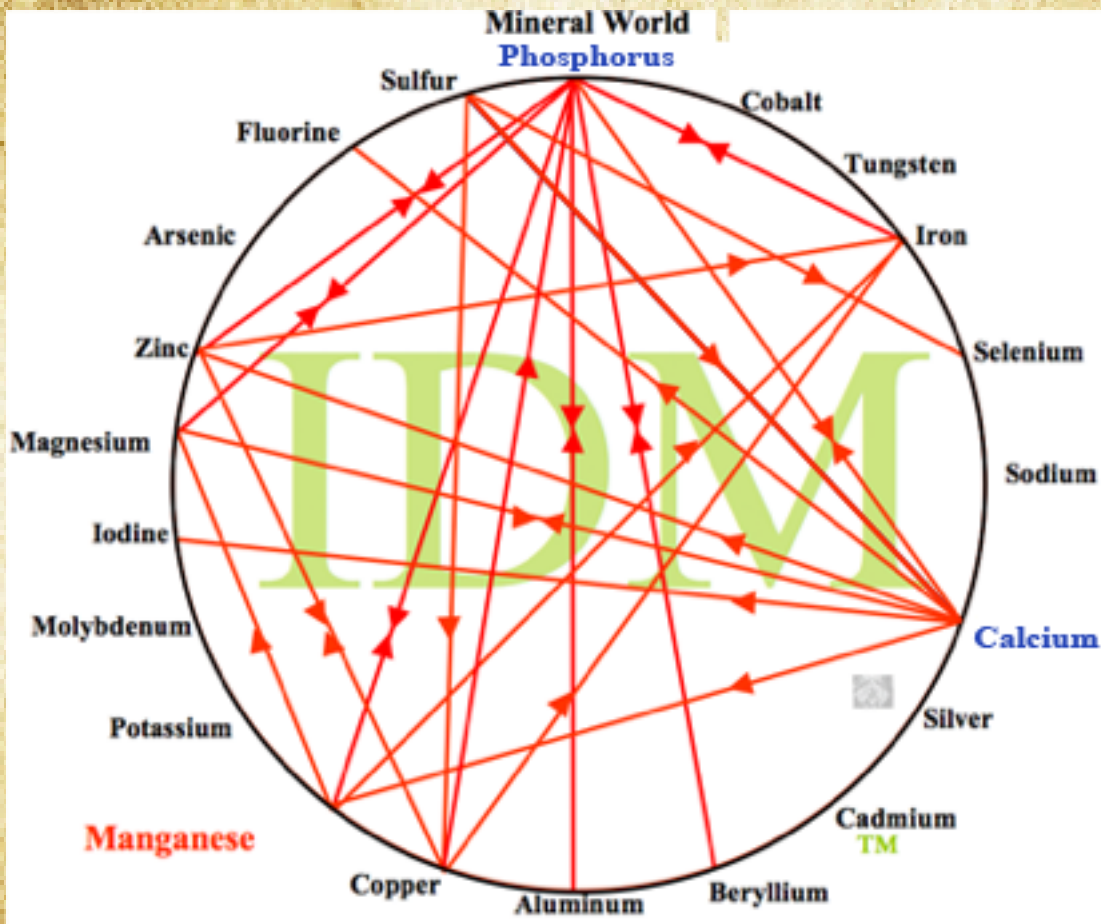
# Mineral World





**Calcium and Phosphorus are major elements that everyone seems to know about.**

**Together they have an effect on almost all elements in the Mineral World.**



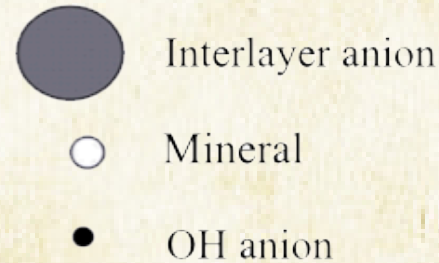
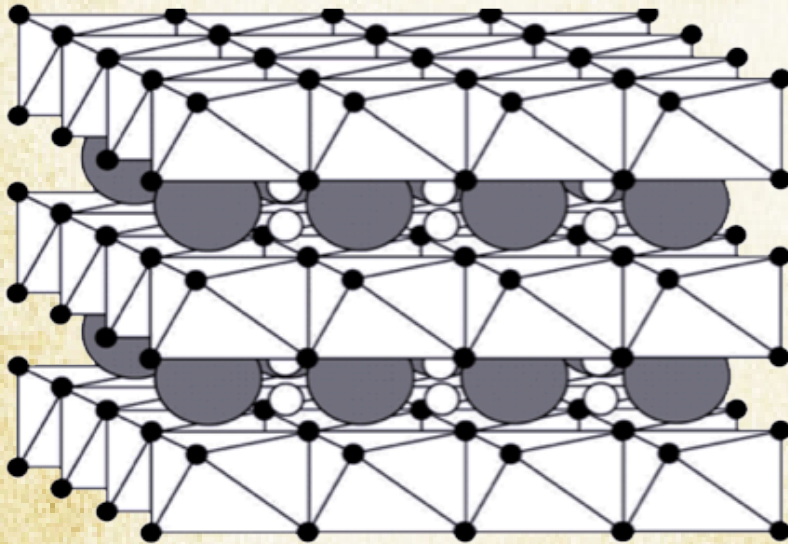
Glyphosate particularly reduces the availability of **Manganese** - an element necessary for the function of **Calcium** and **Phosphorus**.

**Calcium and Phosphorus**, available and in proper balance, are essential to the utilization of the majority of the other elements in the Mineral World as illustrated in the chart shown above.

**The following is a simplified version of the actual mechanism by which Glyphosate affects the availability of Manganese, Calcium and Phosphorus and thus almost all the other elements as well. The actual mechanism is much more complex.**

# Glyphosate Matrix

This is a visual concept not the molecular structure.

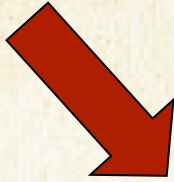


**The inter-layer anion captures the cation mineral, rendering it useless.**

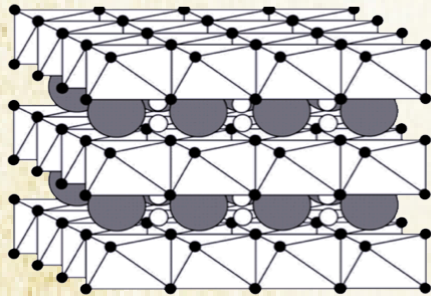
**A Chelator Molecule**

**Glyphosate ties up:**

**Manganese (Mn), Potassium (K),  
Selenium (Se) Magnesium (Mg),  
Calcium (Ca), Nitrogen (N),  
Copper (Cu), Nickel (Ni),  
Iron (Fe), Cobalt (Co)  
Zinc (Zn)**

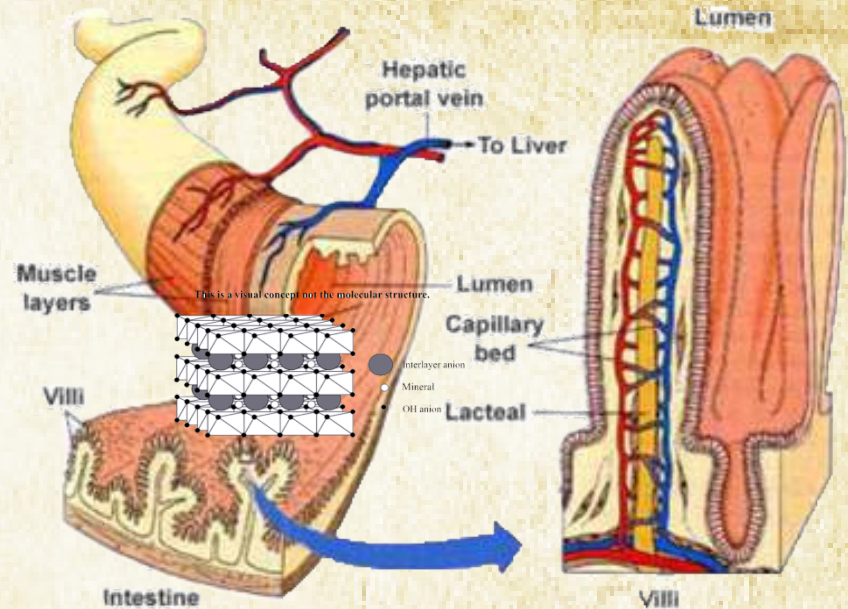
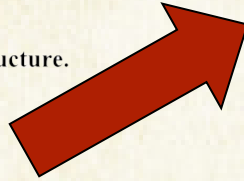


This is a visual concept not the molecular structure.



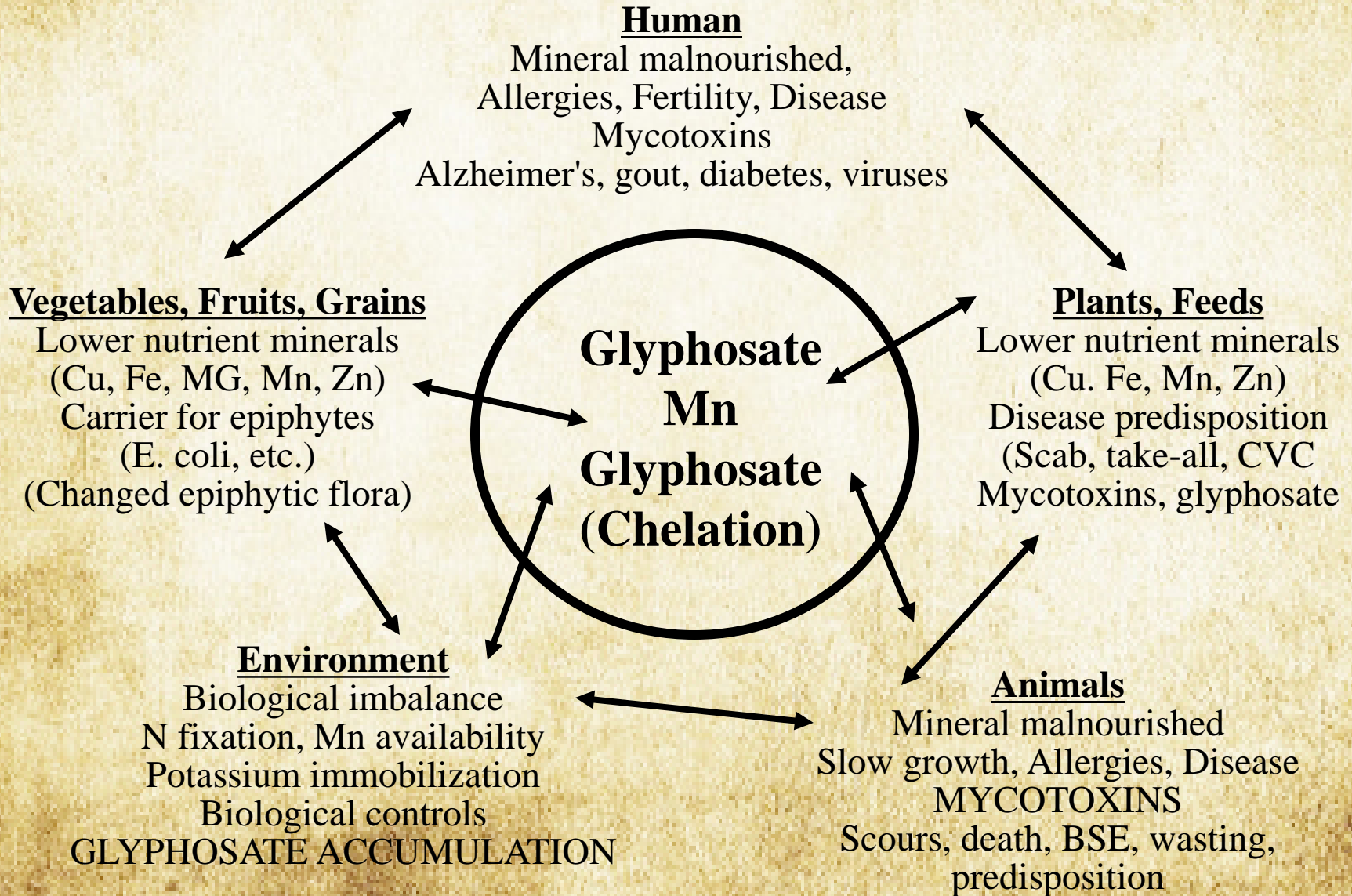
Glyphosate Matrix

- Interlayer anion
- Mineral
- OH anion



**When a glyphosate contaminated plant is digested, the glyphosate matrix present in the plant is released into the gut and ties-up (chelates) the minerals in the feed ration.**

# Potential Far-Reaching Impact of Glyphosate



# Animal and Human Health Concerns

- **Nutrient quality of feed and food – Lower nutrient content**
  - Growth – skeletal development
  - Disease resistance – Mn deficient livers
  - Neurological effects – Parkinson's, ADHD
- **Reproductive failure – Direct effect of glyphosate residues in feed**
  - Toxic to testicular cells, sperm, and sperm function
  - Toxic to embryonic, placental, and umbilical cord cells
  - Endocrine disruption - hormones
- **Mycotoxins in feed**
  - Fusarium toxins – neuro, estrogenic, hepatic toxins
  - Aflatoxins - carcinogens
- **Allergy Reactions**
  - Foreign proteins from GM gene action – gene flow



The shift to less tillage, herbicide resistant crops, and extensive application of glyphosate has significantly impaired nutrient availability and plant utilization efficiency for a number of essential plant nutrients. Some of these impairments are through direct action of glyphosate while others are more indirect through changes in soil organisms important for nutrient access and availability, or plant uptake.

# Effect of glyphosate on plant nutrition & disease

1. Glyphosate is a strong metal chelator (for Ca, Co, Cu, Fe, Mn, Mg, Ni, N, K, Se, Zn) and consequently inhibits many plant essential enzymes.
2. Increases susceptibility to drought and disease.
3. Persists and accumulates in soils and plants with a half-life reported to be 22.5 years.
4. Toxic to beneficial soil organisms which are needed to facilitate nutrient access, availability, or absorption of nutrients.
5. Inhibits the uptake and translocation of Fe, Mn, and Zn at very low, non-herbicidal rates.

# Effect of glyphosate on plant nutrition & disease

6. Stimulates soil-borne pathogens, such as Fusarium, and other soil microbes that reduce nutrient availability.
7. Results in decreased nitrogen fixation.
8. Reduces physiological availability and concentration of Ca, Cu, Co, Fe, K, Mg, Mn, Ni, N, K, Se and Zn in plant tissues and seed.
9. Results in mycotoxins in stems, straw, grain, and fruit.
10. Reduces photosynthesis (CO<sub>2</sub> fixation).
11. Accumulates in food and feed products to enter the food chain as a risk to food safety.

# Glyphosate

1. Reduces the plants physiological efficiency of Fe, Mn, Ni, Zn, etc.
2. Reduces nutrient uptake and efficiency.
3. Lowers seed nutrient content.
4. Transferred in pollen to plants and from degrading plant tissues to microbes.
5. Permanent in plants once it is introduced.

# INTERACTIONS OF GLYPHOSATE WITH PLANT DISEASE

Micronutrients are the regulators, activators, and inhibitors of plant defense mechanisms that provide resistance to stress and disease.

Chelation of these nutrients by glyphosate compromises plant defenses and increases pathogenesis to increase the severity of many infectious as well as non-infectious diseases of both GMO and non-GMO plants.

Many of these diseases are referred to as emerging or re-emerging diseases because they rarely caused economic losses in the past, or were effectively controlled through management practices.

# THE INFLUENCE OF GLYPHOSATE ON SOIL ORGANISMS

Glyphosate is toxic to earthworms, mycorrhizae, microbes that convert insoluble soil oxides to plant available forms, nitrogen-fixing organisms, and organisms involved in the natural, biological control of soil-borne diseases that reduce root uptake of nutrients. Cu, Fe, Mg, Mn, Ni, and Zn deficiencies intensify and show in soils that were once considered fully sufficient for these nutrients. While toxic to beneficial, reducing organisms, glyphosate, in soil and root exudates, stimulates oxidizing soil microbes that convert nutrient into unusable forms.

# **The bottom line ...**

**The use of Glyphosate crops not only damages the health of plants and soil microbes but also results in feed crops that are toxic as well as nutritionally deficient.**

**Crops not treated with glyphosate but grown in contaminated fields can still harbor the chelation effects that interfere with mineral metabolism and reduce nutritional crop value.**

An excellent article on the health effect of RoundUp written by an MD and entitled “**This Could Threaten the Future of Food – Destroying the Entire Food Chain...**” is available at the URL listed below. It is also available at our website.

<http://articles.mercola.com/sites/articles/archive/2011/02/02/monsantos-roundup-linked-to-over-40-different-plant-diseases-and-endangers-human-health.aspx>

- **Jeffrey Smith** - The world’s leading consumer advocate promoting healthier, non-GMO choices “**Monsanto’s Roundup Triggers Over 40 Plant Diseases and Endangers Human and Animal Health**”
- <http://www.responsibletechnology.org/blog/664>

<http://www.greenpasture.org/fermented-cod-liver-oil-butter-oil-vitamin-d-vitamin-a/dr-huber-and-the-impact-of-glyphosate-in-the-food-chain/>

<http://www.betterfarming.com/online-news/us-soil-scientist-warns-glyphosate-yield-reduction-2872>

<http://www.gmwatch.org/latest-listing/1-news-items/12014-negative-impacts-of-roundup-ready-system>



# Glyphosate

## ... the **NEW AGENT ORANGE**

South American research links glyphosate use to genetic birth defects in animals and humans. Check out the following links.

<http://www.pdazzler.net/2010/10/19/the-new-agent-orange/>

<http://www.mindfully.org/Pesticide/Roundup-Glyphosate-Factsheet-Cox.htm>

The major side effect of feeding glyphosate contaminated feeds to animals is an impaired immune system resulting in secondary diseases that actually kill the host animal.

**Unmanageable diseases include:**

**Johne's**

**Foot and Mouth**

**B.S.E.**

**... and the list goes on.**

**Over 50% of dairy cows calving in the U. S. experience a metabolic condition or an infectious disease.**

**(Dairy Herd Management, March 2011)**

# A.B.C.'s G.R.P.<sup>TM</sup>



Addressing the negative effects of GMOs  
Using Glyphosate Remediation Technology<sup>TM</sup>

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