



Veritas Group Limited, a Bermuda Exempt Company, specializing in the management of new technologies and high-end innovations.



Organic Fertilizer with up to 78 Essential Minerals!  
For Maximum Grow

Our Organic Fertilizer sells under these brands:







Veritas Group Limited  
Distributor for NPK 75

NPK 75 nano-technology produces a rich organo-mineral complex foliar concentrate fertilizer with up to 78 nano minerals.



We are losing the organic minerals in our soil that plants rely on for healthy growth. Nutrient scarcity in our farmlands is becoming more and more of a problem. This is beginning to have devastating impacts on both crop yields and public health.

The political ramifications of this situation can't be understated either—soil nutrient shortages cause dependency on imports from nutrient rich countries.

Fortunately, organic fertilizers like NPK can give these minerals back to both plants and soil, which in turn puts them back into our food.



# Executive Summary



How big is the Fertilizer industry? The global fertilizer market amounted to more than 193 billion U.S. dollars in 2021, an increase of roughly 12 percent in comparison with the previous year. However, the fertilizer industry suffers from two gaping problems: (1) The prevailing fertilizers in the world consisting of chemically based Nitrogen, Potassium and Phosphate (“NPK”) are known pollutants of ground water, are depleting soils, and a major cause of algae blooms endangering aquatic life throughout the vast expanse of waterways. (2) There is a severe shortage of NPK as a result of world events currently and for the foreseeable future, which has led to potential of food shortages and starvation in the more vulnerable parts of the world.

Veritas is a distributor for NPK 75, a “Climate Smart” organic liquid fertilizer containing nano-sized trace minerals and micro and macronutrients that helps grow food and restores soil over time. NPK 75 is more than 50% less expensive than prevailing NPK fertilizers, saving cash strapped farmers under massive financial strain. NPK 75 eliminates the negative environmental effects of NPK, and produces larger, healthier, more disease resistant plants producing greater harvests and a shorter growing cycle.

NPK 75 utilizes proven USA patented technology to nano-size natural and pre-chelated trace minerals from mineral rich deposits. When used, the technology results in restored damaged soils, increased water retention (resulting in reduced water usage), reduced need for pesticides and traditional fertilizers, increased plant health and productivity and shortened growing times.

NPK 75 is a organic liquid concentrate containing up to 78 chelated natural trace minerals, combined with additional macro and micronutrients - averaging from 100 to 900 nanometers in size. NPK 75 delivers unprecedented availability of nutrients to the plants; can be used both in foliar spray and soil applications; and is a “Climate Smart” product that does not harm Mother Earth or our natural environment.

**Purpose:** To expand distribution and increase supply chain resilience within the agricultural fertilizer and nutrient management sector, in connection with the production of agricultural commodities worldwide.

**Goal:** To rapidly expand the distribution of commercially available fertilizer worldwide in order to provide farmers more local access to natural, climate smart fertilizer alternatives for producing agricultural commodities that reduce the impact of climate change.

**Objective 1:** Increase the production and use of climate smart, sustainable, and innovative nano micronutrient fertilizer solutions that reduce water usage, pesticides, and fertilizer requirements while restoring soils through organic solutions by 10,000,000 acres in 2024 and 50,000,000 acres per year thereafter.

**Objective 2:** Create a compliant, independent, and successful fertilizer business that generates ongoing employment, production of high-quality fertilizer, and meets all compliance requirements.

## **NPK 75 :**

- Is an organic liquid concentrate containing up to 78 chelated natural trace minerals, combined with additional macro and micronutrients - averaging from 100 to 900 nanometers manufactured from natural and chelated trace minerals from mineral rich deposits located in the US and in Eastern Europe.
- Utilizes a proprietary technology and equipment ("NPK 75 equipment") which can produce 275-gallon plastic totes derived from micron-sized, pre-chelated Montmorillonite trace minerals ("Mineral Powder") provided by NPK 75 to the production facilities.
- Is a natural climate safe solution that results in almost zero water waste and very little solid waste and no harmful by-products during production compared to NPK chemicals manufactured from petroleum which require thousands of gallons of water and produce harmful by-products.
- Costs significantly less per acre than synthetic and other organic alternatives.
- Requires significantly fewer applications per growing season (1 - 3).
- Can be applied as a foliar spray or directly to the soil.
- Has much broader coverage per acre (1 gallon per acre) than other types of synthetic fertilizer.
- Can fully replace NPK as a fertilizer solution or can be used to reduce NPK applications.
- It actually rebuilds the soil over time by stimulating the growth of naturally occurring biologics (microbes) in the soil that reduces the need for fungicides, reduces water usage, shortens the growing season and increases plant growth over time.
- Has a proven increase in crop productivity of 20 - 40% or more based on research done by the renowned Pryanishnikov Institute of Russia.
- Provides a complete solution to the current worldwide agricultural and humanitarian crisis.



## Project Information – cont.



### Verification

#### ***a. Demonstrated track record of performance of technologies***

The performance of the NPK 75 has been tested by farmers in the U.S. in 2020 and 2021 and researched by the renowned Pryanishnikov Institute of Russia in 2021/2022. U.S. farmers anecdotally report that NPK 75 resulted in increases of crop production of up to 50%, a shortened growing season (enabling farmers to get in an extra crop), reduced use of water and fungicides.

The research conducted by the Pryanishnikov Institute on spring wheat and spring barley was conducted in the soil-climatic zone and venue: turf-podzolic heavy loamy soil, 1st agroclimatic zone on the experimental fields of the Federal State Budgetary Institution "VNII of Agrochemistry" in the Moscow region, Domodedovo micro-district Barybino. The Institute compared NPK 75 to a control crop using no fertilizer, the second crop comparison was to traditional NPK fertilizer.

The Pryanishnikov Institute determined the following from their tests: “[NPK 75] triggers and activates germination initiation mechanisms in all treatments [wheat and peas]. Plants respond to exogenous exposure to NPK 75, changing the physiological and biochemical status - increasing the synthesis of chlorophyll pigments and reducing the intensity of oxidative processes in the body, which helps optimize growth function, provides an earlier start of photosynthesis, which in turn contributes to better rooting, development of the primary root system, better use of soil moisture.”

Palomar Labs study of the use of NPK 75’s formulation “EVE” ON CANNABIS CONCLUSIONS:

- EVE realized a significant overall increase in yield at the 4 oz/gallon treatment rate
- Flower Size: Bigs increased by 20.3%
- Potency: Values did not change from the treated to untreated samples.
- Terpene: Concentration from the control to the treated samples increased by 17.05%
- Nutrition Stability: The variance in essential nutrient concentrations were limited with treated plants vs. untreated.



## Cost Comparison Benefits:

This table provides a cost analysis of the use of synthetic fertilizers. Based on the table, the average cost of fertilizer per acre for corn is \$247 and for Soybeans it is \$110. Potatoes require about \$1,800 per acre on average.

Compared to synthetic fertilizers, NPK 75 costs \$100/acre for corn with 4 applications and \$50 for soybeans with 2 applications required. For potatoes, NPK 75 is \$200/acre, without the harm caused by the high concentrations of under-utilized nitrogen, resulting in green-house gas emissions from nitrous oxide and harms through impacts on water-based ecosystems. **Differences: NPK 75 is 40% of the cost of synthetic fertilizers for Corn, 45% of the cost of synthetic fertilizers for soybeans, and 11% of the cost of synthetic fertilizers for potatoes.** The cost comparison alone is enough to warrant adoption as a total replacement or a partial replacement of traditional synthetic fertilizers.

**Table 1. Fertilizer Costs for Corn and Soybeans Using Fertilizer Prices in September 2021 and September 2022**

		Prices on 9/23/2021 <sup>2</sup>		Prices on 9/22/22 <sup>3</sup>		Change
		Prices	Costs	Prices	Costs	
<b>Panel A. Corn<sup>4</sup></b>						
	lbs/acre	\$/ton	\$/acre	\$/ton	\$/acre	\$/acre
Anhydrous Ammonia <sup>5</sup>	170	788	67	1,318	112	45
DAP <sup>6</sup>	177	742	66	947	84	18
Potash <sup>7</sup>	88	657	29	857	38	9
Nitrogen stabilizer			13		13	
<b>Total Fertilizer Costs</b>			<b>\$175</b>		<b>\$247</b>	<b>\$72</b>
<b>Panel B. Soybeans<sup>8</sup></b>						
	lbs/acre	\$/ton	\$/acre	\$/ton	\$/acre	\$/acre
DAP <sup>9</sup>	111	742	41	947	53	12
Potash <sup>10</sup>	133	657	44	857	57	13
<b>Total Fertilizer Costs</b>			<b>\$85</b>		<b>\$110</b>	<b>\$25</b>

<sup>1</sup> Fertilizer requirements are based on University of Illinois recommendations.

<sup>2</sup> Taken from the September 23, 2021 *Illinois Production Cost Report*, Agricultural Marketing Service, USDA.

<sup>3</sup> Taken from the September 22, 2022 *Illinois Production Cost Report*, Agricultural Marketing Service, USDA.

<sup>4</sup> Based on an expected corn yield of 220 bushels per acre.

<sup>5</sup> Based on Maximum Return to Nitrogen (MRTN) rates for central Illinois for corn-following-soybeans (see Corn Nitrogen Rate Calculator at <http://cnrc.agron.iastate.edu>). Given prevailing prices, the MRTN anhydrous ammonia rate is 202 pounds per acre. For calculation of costs, the MRTN rates are reduced by 32 pounds to account for the nitrogen in DAP (DAP is 28% nitrogen, 32 = 177 pounds of DAP x .18).

<sup>6</sup> Phosphate requirements are .37 pounds per bushel of expected corn yield. DAP is 46% phosphate.

<sup>7</sup> K<sub>2</sub>O requirement is .24 pounds of expected corn yield. Potash's analysis is 0-0-60.

<sup>8</sup> Based on an expected soybean yield of 68 bushels per acre.

<sup>9</sup> Phosphate requirements are .24 pounds per bushel of expected corn yield. DAP is 46% phosphate.

<sup>#</sup> K<sub>2</sub>O requirement is 1.17 of expected soybean yield. Potash analysis is 0-0-60.



# Market Impact and Opportunities



## ***a. Adequacy, plan and mechanisms for input procurement***

NPK 75 is made from mineral rich deposits of chelated trace minerals in the US and Eastern Europe. The deposits contain up to 78 active chelated trace minerals. The minerals are first micronized into a powder.

The micronized mineral powder is then taken through a patented wet process where it is nano-sized and put into a concentrated liquid form and shipped to distributors in 275-gallon totes.

NPK 75 is able to deliver the mineral powder to wet plants as they expand to process to liquid concentrate in 275-gallon totes. It may be that some shipments are handled by rail (available) depending on the needs of distributors. The cost of a driver and operation of the truck are included in the financial analysis for the project.

## ***b. Current and anticipated number of agricultural producers benefiting from the project***

The unique characteristics of the pre-chelated nano-sized Montmorillonite 78 trace minerals in the NPK 75 means they can be absorbed directly through foliar application more efficiently than traditional fertilizer chemicals. NPK 75 absorption rate is 95% compared to an 8 - 10% absorption rate for organic foliar fertilizers. That makes their impact on any crop more immediate, with a stronger increase in productivity, and a long-term impact on improving the quality of the soil over time. It also means that this fertilizer only needs to be applied up to three times during the growing season.

If a plant produces roughly 6 million gallons of NPK 75 per year and 1 gallon treats one acre on average, and if each crop requires up to three applications per growing season, then the production of one wet plant using 6 turbines will successfully treat 2 million acres per year. This will result in the elimination of the need for other fertilizers, or a significant reduction in the need for and use of NPK, less water and lower levels of fungicides, etc. This represents a higher and disproportionate impact on the amount of NPK required per acre (multiple treatments/crop/200 lbs. per acre) when replaced by NPK 75, using only 3 gallons per acre across 3 treatments per growing season.

## ***c. Current or prospective end-user commitments***

Having demonstrated the cost benefit analysis of NPK 75 as a legitimate, natural alternative to synthetic fertilizers, the NPK 75 team is currently working with the larger agricultural producers to move from early adopters to full-scale adoption of this unique alternative as a foliar spray option to traditional NPK products.



***a) Expected type, scale, and longevity of direct benefits from greenhouse gas emission mitigation***

Worldwide, "agriculture is the second-largest source of climate change pollution—and both the manufacturing and application of fertilizer has a heavy emissions toll. Synthetic nitrogen fertilizers (derived from fossil gas) and pesticides (derived from fossil gas and crude oil) both contribute to global warming, biodiversity collapse, and toxic pollution. From a manufacturing perspective, the production of the key component of synthetic nitrogen fertilizers is Ammonia ( $\text{NH}_3$ ) which contributes between 1 and 2% of worldwide carbon dioxide emissions. Ammonia has to be made at a high pressure under high temperatures—meaning it takes a lot of energy to manufacture. Most of that energy comes from burning fossil fuels like coal and methane gas, which give off the greenhouse gas carbon dioxide, the main cause of climate change.

From an application perspective, synthetic NPK fertilizers also produce greenhouse gases after farmers apply them to their fields. Crops only take up, on average, about half of the nitrogen they get from synthetic fertilizers. NPK fertilizer applied to crops release an estimated 450 million tons of carbon dioxide ( $\text{CO}_2$ ) per year as a result of only half of the fertilizer being absorbed by crops — equivalent to the total energy system emissions of South Africa. Much of the applied fertilizer runs off into waterways, or gets broken down by microbes in the soil, releasing the potent greenhouse gas nitrous oxide into the atmosphere. Although nitrous oxide accounts for only a small fraction of worldwide greenhouse gas emissions, pound for pound, nitrous oxide warms the planet 300 times as much as carbon dioxide. Agriculture accounts for roughly two-thirds of global emissions of nitrous oxide ( $\text{N}_2\text{O}$ ).

NPK 75 climate safe, organic nano-sized fertilizer contains 78 trace minerals from its Montmorillonite and Smectite deposits.

There are two types of greenhouse gas emissions that will be mitigated through the production of NPK 75 as an alternative climate safe and organic fertilizer. The first is the difference in emissions reduced during production of NPK 75 vs. NPK, the second is the reduction in greenhouse emissions because significantly fewer applications are required for each crop, 3 applications for NPK 75 vs. traditional NPK fertilizers and the higher absorption rate and lower amounts of nitrogen in NPK 75 mean less nitrous oxide produced



***b) Expected type, scale, and longevity of indirect benefits from greenhouse gas emission mitigation***

Waste by-products are also an issue with NPK fertilizers. Nitrogen production requires extensive use of water and fossil fuels for manufacturing. When used in excess, nitrogen fertilizers can be oxidized and lost to the air as nitrous oxide. **Nitrous oxide is a long-lived greenhouse gas that contributes to global warming. It stays in the atmosphere for an average of 114 years and is 300 times more potent than carbon dioxide.** Potassium and Phosphorus are both mined ores. Phosphate production generates huge amounts of phosphogypsum wastes, nearly 48 million MTs in 1988 alone. Industry estimates that 5.2 tons of phosphogypsum is produced for every ton of phosphoric acid. Phosphorus processing also produces high quantities of naturally occurring radioactive materials. The environmental impact of potash mining is generally localized to the mine site, and may include the disruption of vegetation and wildlife, as well as large-volume water consumption and contamination. Then all three components (NPK) have to be processed together. This quadruple production process has massive negative impacts on the immediate environment and broader climate change impacts.

NPK 75 has no byproducts, either during mining or processing. The deposits are mined and 100% processed into micro-sized powder in the first step. During the second step, the powder is nano-sized and concentrated in water. 95% of all water is filtered and then used in the final product. The amount of water waste is negligible and safe. The number of by-products of any kind is also negligible and safe.

The secondary indirect benefit of NPK 75 is that it is applied to crops only three times during a growing season at an average of 1 gallon per acre as compared to 20 applications of NPK during a growing season, at 200 lbs. per acre. This increased efficiency, reduces the need for the volume of product, dramatically reduces the use and need for NPK at the level it is being used by producers today.

***c) Other (non-greenhouse gas) environmental benefits***

The dramatic increase in the use of synthetic fertilizers (NPK) since the early 1900's has resulted in the depletion of naturally occurring minerals in soils. The Earth Summit concluded in 1992 that "There is deep concern over continuing major declines in the mineral values in farm and range soils throughout the world." This was based on data showing a decline in nutrient levels over the last 100 years: Europe – 72% decline. Asia – 76% decline, North America – 85% decline. Nanotechnology has the potential to revolutionize the agricultural and food industry with new tools for the molecular treatment of diseases, rapid disease detection, enhancing the ability of plants to absorb nutrients etc.

NPK 75 restores the soil over time, increasing the biologics in the soil, adding back in a wide range of trace minerals, replaces or dramatically reduces the use of NPK, reducing the leeching from the soil that synthetic fertilizers cause.

**a) Provide agricultural producers with more domestic options for fertilizer and nutrient alternatives.**

NPK 75 is a climate safe alternative, can be applied as a foliar spray that is immediately absorbed and accessed at a cellular level through the surface/leaves of plants, that is less expensive, requires fewer applications, eliminates leeching and other harms to the soil, decreases the use of water and pesticides, decreases growing season and increases productivity of crop yields by up to 50%. These are all wins for agricultural producers. Getting uptake of a new product that can replace or dramatically reduce the volume of NPK needed, is a challenge.

NPK 75 is a combination product that rebuilds soils over a shorter time frame while maintaining all the benefits described. NPK 75 has already been through two test seasons with US and European farmers and found a high level of support and use of the product. The test sites have demonstrated all the positives about the effectiveness of a nano-sized chelated mixture of 78 trace minerals as a climate-safe alternative for agricultural producers.

**b) Reduce the impacts of climate change through the manufacturing and processing of or the use of sustainable, innovative, increased, and efficient fertilizer and nutrient alternatives production and use.**

As described above, NPK 75 is an exciting and innovative alternative to synthetic fertilizers. It has no harmful by-products produced during manufacturing; is much simpler and faster to manufacture than tradition NPK; requires only 3 applications per crop cycle; reduces greenhouse gases by reducing the production of nitrous oxide (300 times more harmful that carbon dioxide) from NPK use; and rebuilds the soil while producing healthier crops with more nutrients for consumption.





# ENVIRONMENTAL REVIEW



NPK 75's mineral deposits were created over millions of years by a fresh water, stratified sediment largely composed of a **montmorillonite**, a phyllosilicate – not “silica” and alternating layers of organic material and residual fulvic acid forming a colloidal sandwich Impregnated with a diverse smorgasbord of trace elements chelated to amino acids. (See attachment for the list of trace minerals).

Bentonites and other types of clay can contain overwhelming amounts of certain minerals like silica that could pose potential danger to the system. **Montmorillonite** is purer with much less calcium and sodium and greater exchange capacities. Its ability to adsorb and absorb toxins makes it the most preferred species of edible clay. “Calcium-based clays are referred to as ‘living clays’ as they principally consist of minerals that contribute to the production of enzymes in all living organisms. They are the preferred clays to be ingested by humans, animals, and plants and for incorporating into soil.” [http://www.aboutclay.com/history\\_of\\_clay](http://www.aboutclay.com/history_of_clay).

Montmorillonite has demonstrated benefits for humans and animals. For plants, the benefits include: Increased yield, bigger plants, more blossoms = more fruit, larger fruit, longer growing season, higher protein count, better nutritional value, reduces wilting during heat and dehydration after harvest, thwarts fungus attacks, increases resistance to other parasites. The montmorillonite helps: foster pro-biotic life that can actually free up nutrients enhancing their bio-availability, break down toxins, turning them into usable elements later on, and bind nutrients to soil particles for easier absorption.

The NPK 75 deposits provide the source of the climate-safe natural fertilizer patented as NPK 75. There are no harmful components in the inputs (montmorillonite) and no harmful by-products that result from the micronizing and nano-sizing of the deposits. The only environmental issue that an NPK 75 fertilizer production plant needs to address is the potential for mineral dust while the powder is being transferred into the turbines. The end product is a concentrate of the minerals in water. 99% of all water used to make the concentrate is contained in the final product. The plant produces almost zero mineral product waste or water waste. And any waste produced is made up of safe, non-hazardous materials.

As a result, the facility maintains a ventilation system and workers use N-95 filters while transferring mineral powder into turbines during production. The following citation from the EPA's Identification and Listing of Hazardous Waste 40 CFR §261.4(b): Exclusions: Solid Wastes which are Not Hazardous Wastes.

## §261.4(b)(7) Mining and Mineral Processing Wastes (Bevill)

(i) For purposes of Sec. 261.4(b)(7) beneficiation of ores and minerals is restricted to the following activities; **crushing; grinding;** washing; dissolution; crystallization; **filtration; sorting; sizing;** drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

The NPK 75 Climate Smart Fertilizer Plants will meet all environmental and OSHA requirements. Due to the safe and efficient nature of the production of NPK 75, there are no harmful waste by-products (either water or solid waste).

### Contents of the Organic NPK 75 fertilizer:

78 Trace Minerals that replenish the soil and improve the nutrition of crops produced.

Aluminum Al	-Cerium Ce	-Gallium Ga	-Lead Pb
-Antimony Sb	-Cesium Cs	-Germanium Ge	-Lithium Li
-Arsenic As	-Chlorine Cl	-Gold Au	-Lutetium Lu
-Barium Ba	-Chromium Cr	-Hafnium Hf	-Manganese Mn
-Beryllium Be	-Cobalt Co	-Holmium Ho	-Magnesium Mg
-Bismuth Bi	-Copper Cu	-Hydrogen H	-Mercury Hg
-Boron B	-Dysprosium Dy	-Indium In	-Molybdenum Mo
-Bromine Br	-Erbium Er	-Iodine I	-Neodymium Nd
-Cadmium Cd	-Europium Eu	-Iridium Ir	-Nickel Ni
-Calcium Ca	-Fluorine F	-Iron Fe	-Niobium Nb
-Carbon C	-Gadolinium Gd	-Lanthanum La	-Nitrogen N





## ENVIRONMENTAL REVIEW – cont.



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Aluminum Al	-Fluorine F	-Neodymium Nd	-Sodium Na
-Antimony Sb	-Gadolinium Gd	-Nickel Ni	-Strontium Sr
-Arsenic As	-Gallium Ga	-Niobium Nb	-Sulphur S
-Barium Ba	-Germanium Ge	-Nitrogen N	-Tantalum Ta
-Beryllium Be	-Gold Au	-Osmium Os	-Tellurium Te
-Bismuth Bi	-Hafnium Hf	-Oxygen O	-Terbium Tb
-Boron B	-Holmium Ho	-Palladium Pd	-Thallium Tl
-Bromine Br	-Hydrogen H	-Phosphorus P	-Thorium Th
-Cadmium Cd	-Indium In	-Platinum Pt	-Thulium Tm
-Calcium Ca	-Iodine I	-Potassium K	-Tin Sn
-Carbon C	-Iridium Ir	-Praseodymium Pr	-Titanium Ti
-Cerium Ce	-Iron Fe	-Rhenium Re	-Tungsten W
-Cesium Cs	-Lanthanum La	-Rhodium Rh	-Uranium U
-Chlorine Cl	-Lead Pb	-Rubidium Rb	-Vanadium V
-Chromium Cr	-Lithium Li	-Ruthenium Ru	-Ytterbium Yb
-Cobalt Co	-Lutetium Lu	-Samarium Sm	-Yttrium Y
-Copper Cu	-Manganese Mn	-Scandium Sc	-Zinc Zn
-Dysprosium Dy	-Magnesium Mg	-Selenium Se	-Zirconium Zr
-Erbium Er	-Mercury Hg	-Silicon Si	
-Europium Eu	-Molybdenum Mo	-Silver Ag	



# What is Organic NPK 75?

When NPK 75 is mixed with water and applied as a foliar spray to leaves or added to the soil, up to 78 nano minerals become readily available to the plants. The amount of required water and pesticides are reduced and your plants will grow bigger, stronger, and healthier.

## PROBLEM

The organic materials in our soil that plants rely on for growth are decreasing

Fruits and vegetables are becoming less nutritious

Soil nutrient shortages will eventually cause dependency on nutrient rich countries

## MINERAL-GRO SOLUTION

Unlike most fertilizers NPK 75 is a organic nutrient-rich foliar spray that can also be directly applied at the root

NPK 75 contains all the organic minerals your garden needs - once the parenchyma tissue and your soil are enriched with these organic fertilizer minerals, they will pass their life-giving energy into the plants and into your meal

When gardeners and farmers utilize NPK 75 they're paving a healthy and independent pathway for their plants and crops



# NPK 75

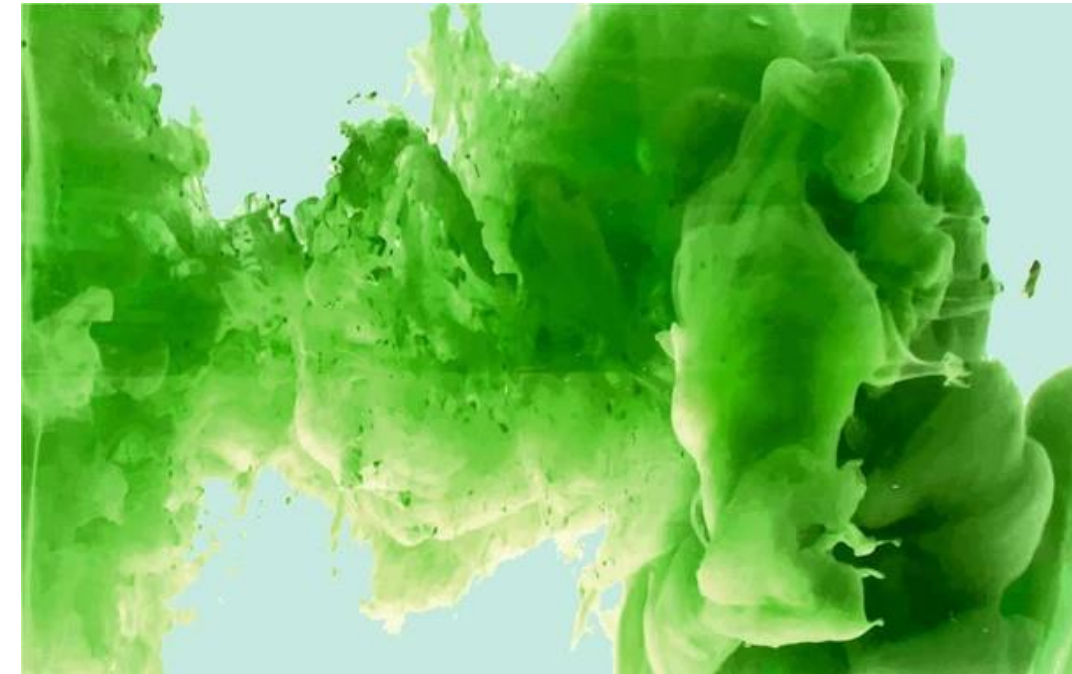
Organic NPK with 75 Essential Minerals

# Patented Technology: Two Stage Process



## Dry Stage

The minerals are blended in a vortex chamber using compressed air and resonant frequencies for pulverization. The minerals become micron-sized dry powder.



## Wet Stage

The micronized minerals are sent through a patented Vortex Controlled Hydrodynamic Cavitation process to implode and nano-size the minerals into a liquid concentrate. The result is “activated” water with nano-size minerals.

This final liquid concentrate is ready to mix with more water and applied as a foliar spray on the crops or plants.



## NPK 75

Organic NPK with 75 Essential Minerals



# Organic NPK 75 Compared to Other Fertilizers

- Produced better Seed germination
- Improved root formation
- Facilitated plant growth and development
- Increased yields
- Improved product taste characteristics
- Inhibited bacterial and fungal diseases
- Reduced the level of heavy metal accumulations
- Reduced the level of radionuclide accumulations
- Increased drought resistance of plants
- Increased the cold resistance of plants
- Increased soil fertility



**NPK 75**

Organic NPK with 75 Essential Minerals

# Other Benefits of Organic NPK 75

- Acts as antidote upon application in tank mixtures with pesticides
- No personal protective equipment needed
- Reduces transplant "shock" losses
- Environmentally safe
- Potential application for cultivating
- Environmentally clean product
- Organic fertilization of soils



**NPK 75**

Organic NPK with 75 Essential Minerals



# Wilcox Farm - Potatoes

## Test & Results

The Wilcox family in St. Anthony ID soaked and planted their seeds with NPK 75 . After three weeks, periodic petiole tests on the leaves measured the micro and macro nutrients present. Additional nutrients were added as needed during the season. The results showed that NPK 75 reduced fertilizer costs by 30% without losing the quality and quantity of the yield:

### Control Results

	DATE	7/6	7/12	7/19	7/26	8/2	8/9
NUTRIENTS	SUFF. RATE						
NITRATES	9300	19463	20891	17137	19531	18030	19541
PHOSPHOROUS	0.20 - .55	0.35	0.27	0.39	0.37	0.35	0.36
POTASSIUM	7.5 - 15	10.06	11.72	12.70	11.88	13.56	11.96
SULFUR	.2 - .5	0.23	0.25	0.23	0.22	0.26	0.22
CALCIUM	.45 - 2	2.21	2.47	2.13	1.61	1.59	1.25
MAGNESIUM	.4 - 1.7	0.42	0.51	0.52	0.51	0.61	0.61
ZINC	23 - 55	53	54	46	41	50	42
MANGANESE	33 - 70	55	51	54	64	69	54
COPPER	5 - 30	10	9	7	5	6	5
IRON	75 - 350	377	276	254	236	173	202
BORON	21 - 55	30	24	23	24	28	20

\*SUFF. RATE = SUFFICIENCY RATE

### Liquid TNT™ Results

	DATE	7/6	7/12	7/19	7/26	8/2	8/9
NUTRIENTS	SUFF. RATE						
NITRATES	9300	23846	22058	17037	18385	18551	17744
PHOSPHOROUS	0.20 - .55	0.29	0.25	0.26	0.36	0.39	0.35
POTASSIUM	7.5 - 15	13.35	12.95	13.67	12.49	13.33	11.91
SULFUR	.2 - .5	0.22	0.26	0.28	0.25	0.25	0.23
CALCIUM	.45 - 2	2.41	2.55	2.30	1.92	1.58	1.32
MAGNESIUM	.4 - 1.7	0.45	0.52	0.65	0.57	0.68	0.54
ZINC	23 - 55	52	63	54	40	49	35
MANGANESE	33 - 70	41	33	34	31	38	32
COPPER	5 - 30	6	5	6	6	7	8
IRON	75 - 350	322	241	169	203	238	203
BORON	21 - 55	23	25	26	26	26	22

\*SUFF. RATE = SUFFICIENCY RATE

# Pryanishnikov Institute of Agrolchemistry - Wheat



## Test & Results

For this experiment in Russia, scientists tested all other fertilizer being imported into, or manufactured in, Russia and compared it to NPK 75 . They were very impressed that a natural organic product could do significantly better than chemical fertilizers - especially with a fraction of the NPK used compared to the standard fertilizers.

Biometric indicators of growth and development of spring wheat depending on the rates of application of agrochemicals

VARIANT	HEIGHT OF PLANTS, CM	QUANTITY PLANTS, PCS/M <sup>2</sup>	NUMBER OF COMMON STEMS, PCS/M <sup>2</sup>	NUMBER OF PRODUCTIVE STEMS, PCS/M <sup>2</sup>	QUANTITY IN THE EAR, PCS		GRAIN WEIGHT PER EAR, GR
					SPIKELETS	GRAINS	
CONTROL	61,7	281,2	384,0	369	27,7	33,9	1,09
LIQUID TNT <sup>®</sup>	65,6	272,0	426,4	421	27,2	35,7	1,16
LIQUID TNT <sup>®</sup> + ADDITIONAL NUTRIENTS	59,3	293,2	436,0	421	29,1	37,6	1,29



# Pryanishnikov Institute - Wheat

## Test & Results - Continued

Pryanishnikov is the most prestigious institute in all of Europe as it has been around for 92 years.

Biometric indicators of growth and development of spring barley depending on the rates of application of agrochemicals

VARIANT	HEIGHT OF PLANTS, CM	QUANTITY PLANTS, PCS/M <sup>2</sup>	NUMBER OF COMMON STEMS, PCS/M <sup>2</sup>	NUMBER OF PRODUCTIVE STEMS, PCS/M <sup>2</sup>	QUANTITY IN THE EAR, PCS		GRAIN WEIGHT PER EAR, GR
					SPIKELETS	GRAINS	
CONTROL	54	292	420	388	19,3	18,6	0,78
LIQUID TNT®	53	330	468	444	19,9	19,2	0,85
LIQUID TNT® + ADDITIONAL NUTRIENTS	65	334	444	421	20,5	19,8	0,89





# Pryanishnikov Institute - Barley

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# Pryanishnikov Institute - Barley

## Test & Results - Continued

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Yield and quality of spring barley grain depending on the rates of application of agrochemicals

VARIANT	YIELD T/ACRE	BUSHEL/ACRE	INCREASE, T/ACRE	WEIGHT 1000 GRAMS, GR	NATURA, G/l	HUMIDITY, %	PROTEIN CONTENT IN GRAIN, %
CONTROL	1.22	50.91	-	42,1	740	8,94	11,20
LIQUID TNT®	1.525	63.54	.305	44,4	730	9,18	11,96
LIQUID TNT® + ADDITIONAL NUTRIENTS	1.518	63.25	0.298	45,1	740	9,13	12,36



# Pryanishnikov Institute - Barley

## Wheat and Pea Germination

The Pryanishnikov Institute determined the following from their tests:

“[NPK 75] triggers and activates germination initiation mechanisms in all treatments [wheat and peas]. Plants respond to exogenous exposure to NPK 75, changing the physiological and biochemical status - increasing the synthesis of chlorophyll pigments and reducing the intensity of oxidative processes in the body, which helps optimize growth function, provides an earlier start of photosynthesis, which in turn contributes to better rooting, development of the primary root system, better use of soil moisture.”





# Contact

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