

MADE IN
UKRAINE



Quantum[®]
Plant nutrition innovations

EVERY DROP
TO GROW
YOUR CROP





WE ARE PROUD OF:

- Our 10-years successful experience in production and sales of agrochemical products;
- Our highly experienced and competent staff;
- Our manufacturing process and quality of our products that meet world standards;
- Our authority and recognition in Ukrainian market.



Research and production Company (RPC) KVADRAT conducts business at the Ukrainian market since 2010. It is a modern fast growing company, the leader of Ukrainian agrochemical industry.

The basic principles of our Company are high professionalism, responsibility to each Customer and reliability of the result on the field.

The main activities of the Company are production and sales of specialty fertilizers, biostimulants and adjuvants.

PC KVADRAT was the first in Ukraine to produce high quality liquid starter fertilizer (In-furrow&Pop-up) and microgranulated starter fertilizers. In order to exchange experience and increase the starter fertilizers use efficiency, the company launched an information project "In-Furrow in Ukraine".

Along with starter fertilizers, RPC KVADRAT is one of the biggest producers of chelate micronutrient fertilizers, biostimulants for foliar application, seed treatment and fertigation.

OUR TEAM

The strength of RPC KVADRAT lies in a team of experienced experts who support our customers and partners with their knowledge and experience.

Our professional management team combined with knowledge, rich experience and expertise, the company's management leads to the success of our customers, business partners and employees.

We are proud of our employees, including many people with higher education including PhD holders.

Our staff includes agronomists-consultants, managers, engineers, chemists, laboratory assistants, accountants, production department managers, and many other specialties.



INTERNATIONAL COOPERATION

The research and production company "KVADRAT" has registered the Quantum® trademark in the European Union as "EU Fertilizer". Also, our products have been registered in the Republic of Belarus and Moldova. The process of registering our product line in the USA has begun, where an international representative office has been opened.

Our goal is to build a developed network of distribution partners in order to provide quality services in the USA, Europe and Latin America.

We use high quality raw materials to manufacture our products and we have a great partnership with leading suppliers around the world such as seaweed company Acadian Seaplants, precision liquid fertilizer placement tools producer's AgXcel and many others.



OUR PLACE IN THE UKRAINIAN MARKET

The company "KVADRAT" is one of the Ukraine's top crop nutrition companies and providers of farming solutions both on production volume and innovative development with new product introduction, many of which have no analogues.

The company's main products are:

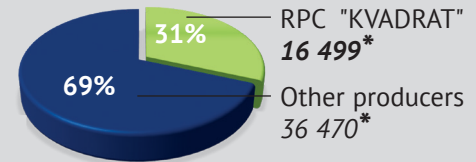
- Chelate micronutrients and non-microbial plant biostimulants Quantum©
- Premium liquid starter fertilizers produced under the brand name Quantum© Diafan ACTION
- High technology adjuvants Quantum© Assistant
- Suspension fertilizer Quantum© S
- Proventus© water soluble fertilizers and UltraStart micro granular fertilizers

OUR SERVICES AND CONSULTATIONS

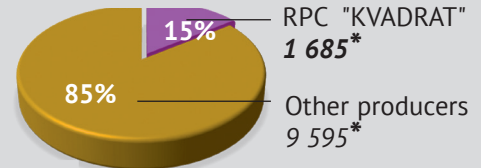
We provide the most innovative precision liquid fertilizer application tools. We specialize in the design, manufacture and installation of unique solutions and components for In-Furrow placement of our liquid pop-up fertilizers Quantum© DIAFAN Action.

Our laboratory provides soil testing and plant tissue analysis for our Customers. Based on test results, we provide them with highly precise recommendations for fertilizers application. Tissue analysis allows us rapid reaction on nutrient deficiencies in-season.

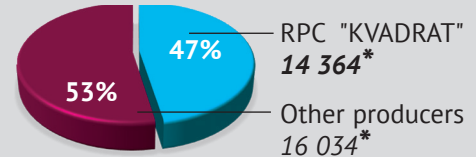
Specialty fertilizers common market share of RPC "KVADRAT" in Ukraine in 2022



Liquid foliar fertilizers market share of RPC "KVADRAT" in Ukraine in 2022



Liquid starter fertilizers market share of RPC "KVADRAT" in Ukraine in 2022



* Sales volume is in thousand liters or tons



OUR PRODUCTION FACILITIES



Presently the "Quantum" factory (Kharkiv region) is the modern, dynamically developing enterprise specialty fertilizers production under the own Trademarks and Private Labels.

The total production capacity makes up 500 MT/day. Storages for raw materials and market products - about 10,000 square meters.

A distinctive feature of the TM Quantum® products is the high quality of ingredients and raw materials, the use of advanced technologies, and strict quality control in production. We use only top-quality components and raw materials from the world's leading suppliers including pharmaceutical and food purity. The geography of our suppliers is wide and covers more than 15 countries.

We carefully monitor each batch of raw materials for compliance with quality indicators and the content of impurities.

Our laboratories are equipped with modern equipment for quality control of raw materials, obtained products and conducting agronomic research, these are elemental analyzers - inductively coupled plasma spectrometers (ICP) by Thermo and Agilent, UV-Vis spectrometer by Thermo, x-ray fluorescence analyzer (XRF) by Hitachi and others.

Our manufacturing process is managed by highly qualified employees with detailed knowledge of chemistry and fertilizer production.

Thanks to investment in new machinery, laboratories and production technologies, we have been able to achieve improvements in efficiency and productivity at all stages of the production process.

OUR PRODUCTS



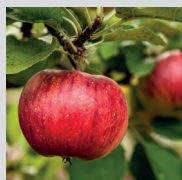
Premium starter fertilizers



Liquid deficiency correctors



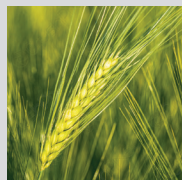
Liquid multicomponent formulations



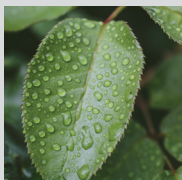
Liquid plant growth biostimulants



Liquid functional fertilizers



Suspension fertilizers



Adjuvants



Water-soluble fertilizers

R&D DEPARTMENT

KVADRAT's objective is a long-term development, so it is important for us to invest in research and development. Modern equipment and instruments in the laboratory and a team of experienced, educated professionals, full of commitment and passion for the search and discovery of new solutions, bring the astonishing results of innovative products on the market.

R&D department pays great attention to modern scientific research and monitors the trends in the development of innovative technologies in search of effective means to improve the efficiency of their products.

In the field and laboratory conditions, we study the effect of various compositions of nutrients and biologically active substances on the growth and development of plants, constantly adding new successful products and improving existing ones.

Our in-depth knowledge of the physiological characteristics of crops, biological and chemical characteristics of raw materials allows us to create products with high bioavailability and agronomic efficiency.

As a result of close interactions between science and practice, a number of innovative solutions have been created to improve the efficiency of assimilation of nutrients, increase plant stress resistance and improve product quality.

Innovative technologies of RPC KVADRAT



EXTRA CHELATE TECHNOLOGY

Advanced technologies require complex tank mixes for preparing a foliar feeding solution, seed treatment, IN-FURROW™ application or fertigation. **Extra chelate Technology** protects trace elements from interaction with other fertilizers, biostimulants and plant protection agents in tank mixes or soil in a wide pH range.

INNOVATIVE TECHNOLOGIES

- ◆ 100% chelated form of trace elements for maximum stability and effectiveness;
- ◆ excellent compatibility in tank mix compatible with liquid starters (orthophosphates) and other highly concentrated fertilizers, biostimulants and plant protection products;
- ◆ a wide range of agrochemicals compatibility makes it possible to considerably decrease expenses by reducing the number of fertilization process;
- ◆ special formulations provide a high concentration of trace elements, excellent bioavailability and improve the penetration of all components of the tank mix.

APT technology

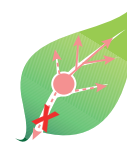
APT technology. Active Phloem Transport is the technology for increasing the phloem mobility of nutrients. All this provides rapid movement of elements from the application area up to young plant tissues.

Most trace elements and Calcium are not mobile in the phloem, that is, they have a low ability to move from one part of the plant to another. A special complex of APT technology polyols ensures the formation of compounds in the plant with high transport capacity. Low-molecular transport forms of elements contribute to a better penetration of compounds into the leaf and unimpeded movement of elements with low mobility through the plant vascular system.

APT technology



High mobility



Common Boron solution

Limited mobility

RX Technology

RX Technology is the innovative technology to Improve plant stress tolerance. Resistance eXtreme Technology is based on the action of a number of organic compounds with high biostimulation activity and anti-stress action.

Bioactive components of RX Technology regulate a wide range of cellular processes:

- ◆ stimulate the natural mechanisms of plant resistance to abiotic stresses (drought, heat and salt) and pathogens;
- ◆ perform the functions of an endogenous stress-related signal, activating a synthesis of anti-stress proteins and antioxidant enzymes;
- ◆ take part in the regulation of transpiration, increasing the water-use efficiency and drought resistance;
- ◆ contribute cell membrane stability;
- ◆ increase photosynthetic activity;
- ◆ stimulate growth and plant roots absorb nutrients.

INNOVATIVE TECHNOLOGIES



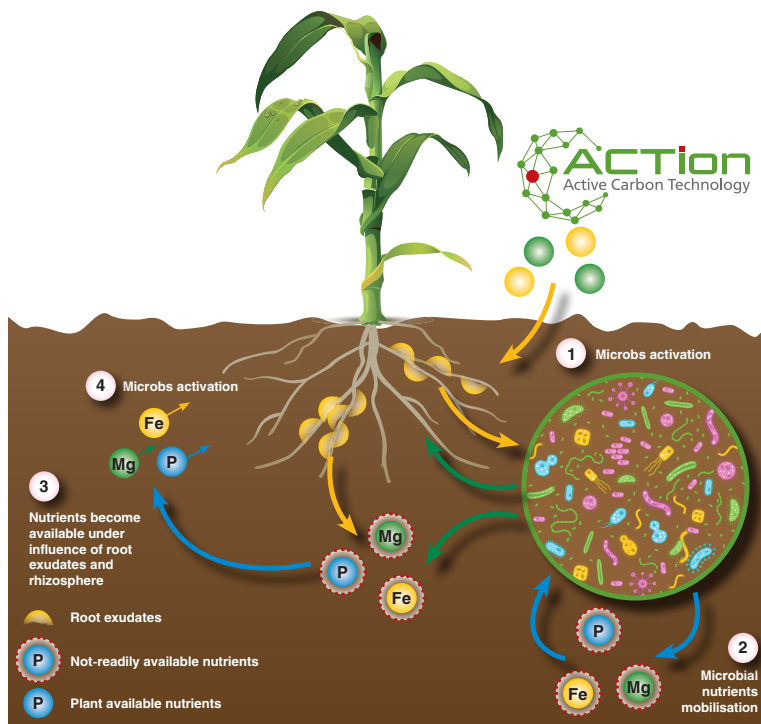
Active Carbon Technology is a technology for rhizosphere processes intensification (rhizosphere management).

Rhizosphere management is based on maximizing the efficiency of root and rhizosphere processes in nutrient acquisition and use by crops rather than solely depending on excessive application of chemical fertilizers.

Management of the rhizosphere of the plant – a zone of soil that surrounds and is influenced by plant roots (exudates) and soil microflora (bacteria, fungi and other organisms).

According to the biological activity ACTION complex has a similar effect to Root exudation which stimulate rhizosphere activity:

- ◆ increase soil microbial activity and improve nutrient absorption from;
- ◆ provide an available source of energy (carbon) for the soil, microbiota and agricultural crops;
- ◆ stimulate the root system development;
- ◆ activates stress resistance at the initial stages of development;
- ◆ ACTION's buffer agents contribute phosphorus mobilization and other elements from the soil and applied fertilizers.




The root-rhizosphere microflora system is formed immediately after seed germination. The application of Quantum Diafan starter fertilizers with ACTION technology during a time of sowing seeds contributes to:

- ◆ active settlement of the root zone prior to seed germination and stimulation of microflora reproduction even before unfavorable growth conditions;
- ◆ increasing nutrient availability as the direct effect of ACTION components on the mobility of not readily available elements, and indirectly through the stimulation of the rhizosphere microflora.

Note! This information is for promotional purposes only. These products may not yet be available or approved for sale or use in your area.




LIQUID MULTICOMPONENT FORMULATIONS

The specialized subgroup includes multinutrient fertilizers for foliar treatment of a wide range of crops with specially selected macro- and trace elements and biologically active substances

PRODUCT	ANALYSIS
<p>Quantum Ultra-Complex</p> <p>Foliar fertilizers with trace elements that contains a balanced ratio of NPK (nitrogen, phosphorus, potassium) and a complex mixture of important trace elements (TE) in a chelated form.</p> <p><i>Used for foliar application and seed treatment on all crops.</i></p>	<p>8-8-7 with 0.015% B 0.025% Cu EDTA 0.05% Fe EDTA 0.03% Mn EDTA 0.005% Mo 0.025% Zn EDTA</p> <p>Weight: 10.35 lbs. per gallon pH – 5.5-6.5</p>
<div style="text-align: center;">   </div> <p>Quantum Platinum</p> <p>The complex of chelated EDTA trace elements is enriched with nitrogen, magnesium, calcium, sulfur to activate photosynthesis and amino acids to increase plant stress resistance.</p> <p><i>Intended for foliar application of a wide range of crops, seed treatment and application in combination with starter fertilizers.</i></p>	<p>7.1-0-0 with 1% Ca EDTA 0.67% Mg EDTA 0.54% S 0.37% B 0.002% Co EDTA 0.52% Cu EDTA 0.9% Fe EDTA 0.52% Mn EDTA 0.007% Mo Ni 0.007% EDTA 0.9% Zn EDTA</p> <p>Weight: 11.2 lbs. per gallon pH – 7.0-8.5</p>
<div style="text-align: center;">  </div> <p>Quantum TRIO</p> <p>Complex of 100% EDTA chelated micronutrients with Zinc, Manganese, Copper that Nitrogen- and Sulfur-enriched. Fully compatible in a tank mix with concentrated liquid NPK fertilizer, biostimulants and plant protection products due to the Extra-chelation technology.</p> <p><i>Fertilizer is applied IN-FURROW (soil application) and for foliar application to provide mineral plant nutrition of winter and spring sown crops.</i></p>	<p>7.5-0-0 with 1.95% S 1.5% Cu EDTA 2.25% Mn EDTA 2.25% Zn EDTA + 1.5% amino acids</p> <p>Weight: 11.1 lbs. per gallon pH – 8.0-8.5</p>

LIQUID DEFICIENCY CORRECTORS

Liquid concentrated fertilizers for the correction or elimination of macro- and micronutrients deficiencies refer to this subgroup

PRODUCT	ANALYSIS
<p>Quantum BORON ACTIVE</p>  <p>Highly effective fertilizer based on readily available biologically active Boron compounds. Amino acids in the fertilizer composition improve Boron uptake, boost metabolism and improve plant resistance to stress. This fertilizer with Boron-Polyol complexes can affect Boron remobilization via phloem to growth points.</p> <p><i>Designed for foliar application to all field, row, vegetable, fruit, tree and vine crops for the prevention and correction of boron deficiencies.</i></p>	<p>4.1-0-0 with 10.4% B 0.0037% Cu 0.015% Mo + 1.5% amino acids + polyol complexes</p> <p>Weight: 11.2 lbs. per gallon pH: 6.5-8.5</p>
<p>Quantum BORON ACTIVE + Mo (B+Mo)</p> <p>Special type of Boron fertilizer with high molybdenum content with addition of cobalt. Provides nutrients needed for nitrogen metabolism and root nodule formation, as well as enhancing flowering and fruiting.</p> <p><i>This fertilizer successfully used for foliar nutrition of beans and other molybdenum-demanding crops.</i></p>	<p>3.6-0-0 with 9.2% B 0.03% Co EDTA 0.46% Mo</p> <p>Weight: 10.85 lbs. per gallon pH – 7.0-8.0</p>
<p>Quantum Ultra-Zinc 9% EDTA</p>  <p>Highly concentrated zinc chelate fertilizer (EDTA). It is used for the correction or elimination of Zinc deficiencies. Fully compatible in a tank mix due to the Extra-Chelate technology.</p> <p><i>Applied IN-FURROW (soil application) and for foliar application for the prevention and correction of zinc deficiency in all crops.</i></p>	<p>Zn EDTA 9%</p> <p>Weight: 10.85 lbs. per gallon pH – 6.0-7.5</p>
<p>Quantum Manganese Mn 5% EDTA</p>  <p>Highly concentrated Manganese chelate fertilizer (EDTA). It is used for the correction or elimination of Manganese deficiencies. Fully compatible in a tank mix with liquid starter fertilizers, biostimulants and plant protection products due to the Extra-Chelate technology.</p> <p><i>Applied IN-FURROW (soil application) and for foliar application for the prevention and correction of manganese deficiency in all crops.</i></p>	<p>Mn EDTA 5%</p> <p>Weight: 10.75 lbs. per gallon pH – 6.5-8.0</p>
<p>Quantum Ultra-CoMo</p> <p>Liquid fertilizer for seed treatment and foliar application of legume and other molybdenum-demanding crops, specially formulated to prevent deficiencies of molybdenum and cobalt, essential for nitrogen fixation.</p> <p><i>Maximum concentration of trace elements and low application rate.</i></p>	<p>1.1% Co EDTA 11.1% Mo</p> <p>Weight: 11.2 lbs. per gallon pH – 5.2-6.2</p>

LIQUID PLANT GROWTH ENHANCER

A group of stimulating products for foliar application and seed treatment. It is used to increase resistance to stress, stimulate the absorption of nutrients and improve product quality

PRODUCT	ANALYSIS
<p>Quantum AminoMax 200</p> <p>Complex foliar fertilizer and plant growth enhancer with powerful anti-stress effect which contains a high concentration of plant-based L-amino acids and balanced combination of macro- & microelements.</p> <p><i>Intended for foliar application, seed treatment and In Furrow application of a wide range of crops to mitigate and overcome different stresses and for activation absorption nutrients.</i></p>	<p>2.1-1.9-2 with 0.026% B 0.005% Co EDTA 0.052% Cu EDTA 0.052% Fe EDTA 0.052% Mn EDTA 0.01% Mo 0.043% Zn EDTA + 17.5% amino acids</p> <p>Weight: 9.51 lbs. per gallon pH – 5.5-6.5</p>

HIGH TECHNOLOGY ADJUVANTS

This line of adjuvants was developed to improve the application of plant protection products, fertilizers and fertilizer solutions correction

PRODUCT	ANALYSIS
<p>Quantum GEKKO</p> <p>Non-ionic universal organosilicone superspreader for pesticide and leaf nutrients. It decreases the surface tension of spray solutions to much lower values, in comparison to conventional adjuvants.</p>	<p>100% Polyether-polymethylsiloxane-copolymer, polyether</p>
<p>Quantum CHAMELEON</p> <p>Water conditioning agent and acidifier intended for use with a variety of pesticide or nutrient applications that are susceptible to the negative effects of hard water and high pH, which can affect efficacy. Effective in lowering spray solution pH and treating water hardness. It creates a good environment in the spraying tank for maximum pesticide and nutrient efficacy.</p>	<p>54.5% Ammonium sulfate 2-hydroxy-1,2,3-propanetricarboxylic acid 45.5% Constituents ineffective as a spray adjuvant</p>



COOPERATION

We would like to invite all companies interested in our liquid foliar fertilizers, biostimulants and adjuvants to cooperate with us. Many years of experience and continuous technological development provide our customers with the benefits of high-performance QUANTUM solutions, confirmed by excellent plant response to field applications.

We are happy to contribute our knowledge and experience to our partners. We are open to suggestions and establishing new business contacts. Contact us and we will analyze all possibilities, we are convinced that we will find the optimal solution.

We look forward to cooperating with you.



Management
System
ISO 9001:2015

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