

WHAT WILL THE WORLD LOOK LIKE IN 10 YEARS?



FACING THE CHALLENGES OF THE AGRIFOOD ECOSYSTEM OVER THE NEXT DECADE

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EFTHYMIADIS
AGROTECHNOLOGIES

“

Dad!
what will
the world
look like in
10 years?

”

C H A P T E R 1 :
The Challenges Ahead

C H A P T E R 2 :
Game Changers

C H A P T E R 3 :
Lessons Learned

CHAPTER 4:
Predictions



In the 90 years since our founder set up the company that would eventually become today's Efthymiadis Agrotechnologies, we've seen the world change — and change again. Advancements that once took decades to mature now transform our lives in months. Climate, commerce, science, society — nothing moves slowly anymore.

This is why we believe that foresight is not a luxury, but a duty. That long-term thinking, careful planning and bold but balanced decision-making constitute the only way forward — especially when a family legacy is involved and the decisions we make today shape the world our children will inherit tomorrow.

As we look toward our centennial, we do so with measured optimism — grounded not in naïve hope but in the power of human ingenuity. Time and again, people have come together across boundaries to solve what once seemed unsolvable. We believe the coming decade will be no exception.

This book tells a story of progress — and possibilities. It is a reflection of our shared challenges, the tools we now have to face them, and the lessons we carry from 90 years of growing, learning, and adapting.

We invite you to join us in imagining the world of 2035
— and in making sure we grow towards it wisely.



† Efstymios Efthymiadis
Founder
[first generation]



Nikos Efthymiadis
Co-Founder, Chairman
[second generation]



Thymis Efthymiadis
Vice Chairman
[third Generation]



Vassos Efthymiadis
Vice Chairman
[third Generation]



Loukia Efthymiadis
Member of the Board
[third Generation]

Signed by the 3 generations on behalf of the 4th, to whom we entrust our legacy.

“

The Challenges
Ahead

”

Feeding a growing global population has always been agriculture's central task.

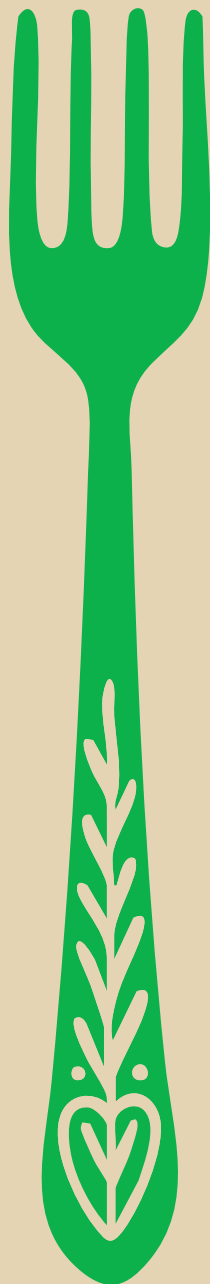
But today, that mission is being rewritten by a series of complex, and sometimes conflicting, pressures.

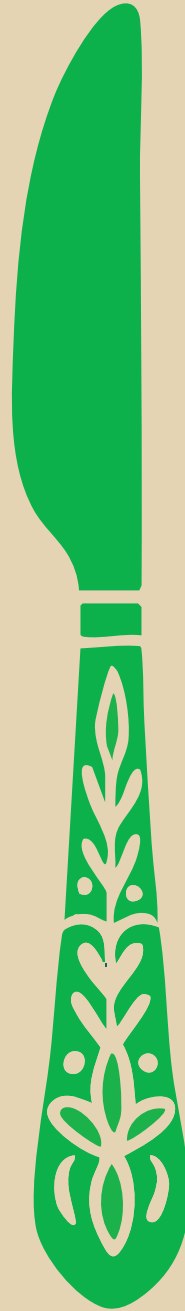
We are being asked to do more — with less.

Less arable land. Less water.

Fewer chemicals. Less time.

And all this in the face of rapid climate shifts, geopolitical upheavals, and evolving consumer expectations about what “good food” means.





the core pressures shaping the next decade

Nutritional deficits in vast populations despite surplus calories.

The global burden of
“hidden hunger” affects
over 2 billion people lacking
key micronutrients.

OUR ANGLE

We put biofortification strategies to work —
for example, by improving selenium content
in vegetables through tailored nutrition
solutions.



Post-globalisation dynamics reshaping trade, supply chains, and trust.

Regional foodsystems gain
ground as supply chains face
disruption, protectionism,
and fragmentation.

OUR ANGLE

We have long established and keep developing
strong local partnerships across Southeast
Europe, building resilient agri-networks and
enabling traceable, certified agricultural
production as close as possible to
the end-user.





Protein source choices driven by culture, cost, and climate conscience.

The developing world seeks to increase its animal-based protein consumption, while the developed world is shifting toward plant-based proteins and alternative sources like insects or fermentation-based proteins.

OUR ANGLE

We are promoting high-efficiency nutrient programs for legumes and specialty crops, while using tailored biostimulants to boost crop quality and yields.



Your next
prescription
might grow
in a field!

Better nutrition already
prevents more deaths
than any single drug class.

Imagine when every
crop is bred for health
as well as yield.

— LET — FOOD — BE THY — MEDI CINE

Hippocrates,
Father of Modern Medicine
460 - 370 BCE



Land scarcity in high-density and drought-prone areas.

Around the world, researchers are breeding plant varieties for resilience to drought, salinity, gale-force winds, storms, and high temperatures.

OUR ANGLE

For over 10 years now we have been heavily investing in seed innovation and contract farming for crops resilient to adverse conditions.

The Group also supports regenerative agriculture through soil, water and plant tissue testing and advisory services led by our subsidiary Veltia Labs.



Interconnected risks in a global food system vulnerable to shocks.

Pandemics, war, climate events, and economic crises all affect food availability and affordability.

OUR ANGLE

Efthymiadis Agrotechnologies maintains long-standing collaborations with global suppliers such as Bayer, Mitsui and Nufarm, and places heavy emphasis on contract farming schemes which align producer output with end-user requirements, while promoting local crop diversification to strive towards food adequacy.



Climate volatility altering crop patterns and risk profiles.

In Southern Europe, shifts in rainfall patterns are already prompting farmers to change planting schedules and crop mixes.

OUR ANGLE

We support data-driven agronomy via CropApp, a pioneering decision-support tool, integrated with weather prediction, crop monitoring, and risk alerts.





“

The question
is no longer
whether
agriculture
must evolve
— but how
quickly, and
how wisely,
we can develop it

”

“

Game
Changers

”

From the earliest use of the plough and irrigation to the Green Revolution, every agricultural breakthrough has begun with a game-changing tool. Today, the pace and precision of these innovations is unmatched in human history.

Biology, data science, and engineering are converging in fields and labs alike. And together, they're changing how we observe, decide, and act across the entire agricultural cycle.

These are some of the technologies transforming farming into a minimal-footprint, high-precision science, and how we plan to put them to work.

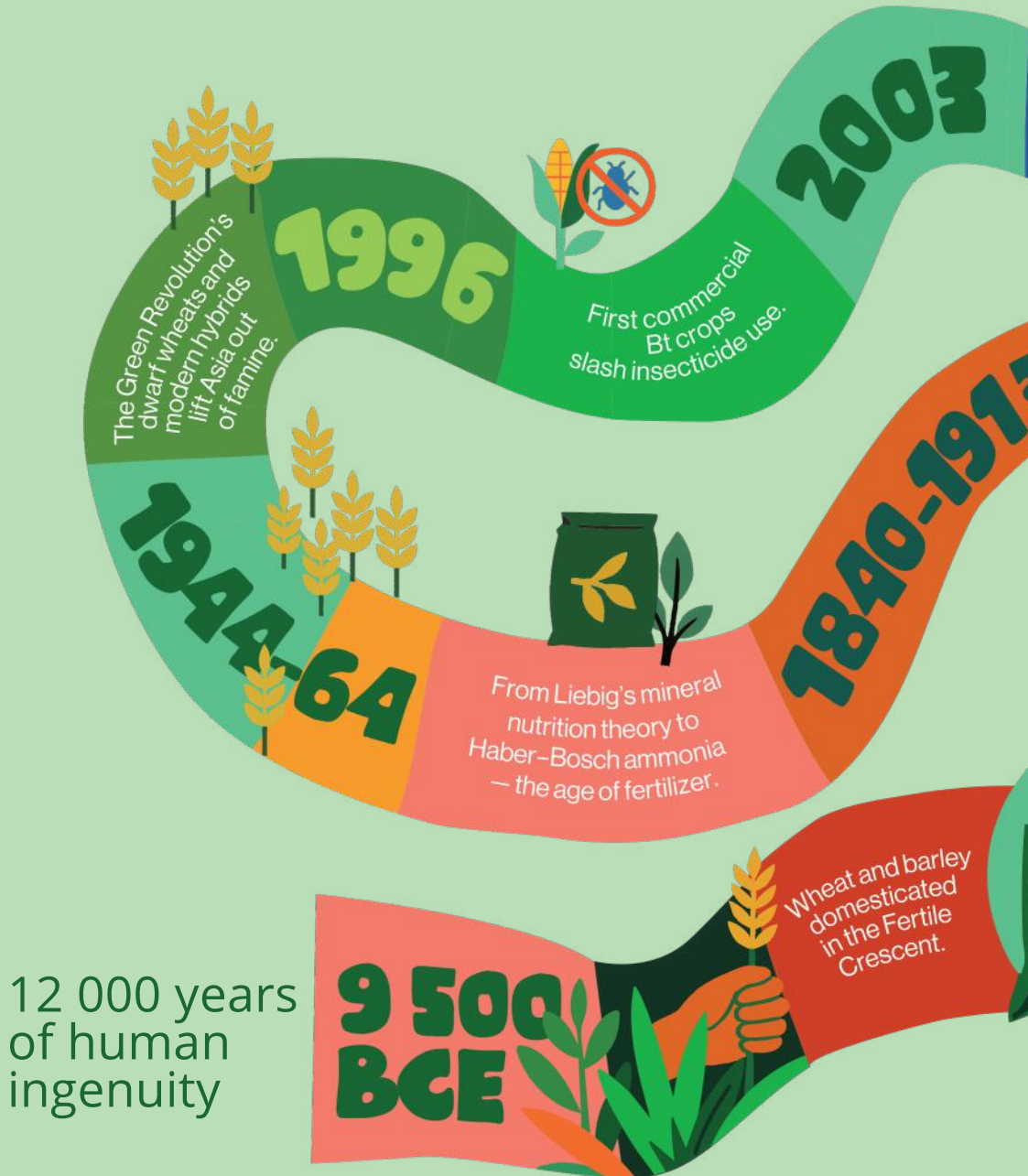
TOMORROW W IN NOW





WILL BE FED BY
VATION

Just as the past was







Supercharging Photosynthesis

Through NewGenomic Techniques (NGTs), researchers are starting to develop crops with improved photosynthesis and drought-resistant characteristics in a much shorter time period than up to now.

OUR ANGLE

Through BIOS Agrosystems, we participate in seed trait development via partnerships and research consortia, engaged in cotton and vegetable seed programs.





Bioprotection & Biorationals

Plant protection products, derived from microbes, botanicals or RNA-interference techniques, are becoming invaluable partners to synthetic pesticides.

OUR ANGLE

We are actively promoting low-risk plant protection substances, such as terpene-based and plant extract-based products, developing copper nanoparticles in partnership with Universities and Research Institutions and connecting with bioprotection leaders such as Certis Biologicals.



Soil & Water Management

Covercrops, biostimulants, and precision irrigation are key to soil restoration and water conservation.

OUR ANGLE

Our subsidiary Veltia Labs runs the region's most complete soil management tools, by precisely mapping organic carbon, heavy metal traces, pesticide residues, soil composition and microbial load, helping growers "know" their land and optimize the use of inputs.



Biofortification for Health

Nutrition-enhanced crops such as higher-lycopene tomatoes contribute to preventive health.

OUR ANGLE

We integrate nutrition goals into new varieties under development, as well as fertilization programs with branded micronutrient and biofortified input solutions to existing crops.

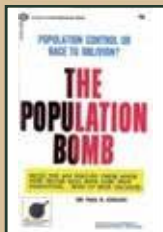


THE POPULATION BOMB!

Scientist Paul R. Ehrlich warns that the battle to feed all of humanity is over.

**DOOM
LOOMS**

**STARVATION
THREAT**



“The battle to feed all of humanity is over. In the 1970s hundreds of millions of people will starve to death in spite of any crash programs embarked upon now. At this late date nothing can prevent a substantial increase in the world death rate...”

—Paul R. Ehrlich

**BEWARE
—THE—
ALARMISTS**

**Dark prophecies fill the headlines,
solutions seldom do!**

Nothing of the sort happened! Our industry was already working on the ground for years and understood that agriculture can outsmart the angels of Doom. In the last 50 years the global food production tripled and the undernourished are at history's lowest!



Smart Farming Data Management

From drones and sensors to AI-driven recommendations, digital farming is becoming real-time and site-specific.

OUR ANGLE

CropApp provides valuable grower recommendations through satellite imagery, predictive analytics and real-time field data, helping conserve on water, avoid unnecessary chemical treatments and act preventively.



Early Disease Detection

Modern technologies will detect plant pathogens before symptoms appear.

OUR ANGLE

We have developed and are ready to commercialize Pebble, a high-tech mobile device that detects botrytis — and soon other fungal diseases — on an early stage through genome mapping, resulting in a preventive, more efficient crop protection spraying program.



Next-Gen, Purpose-Specific Seeds

High-efficiency varieties
and close links to processing
industries.

OUR ANGLE

Contract farming specific varieties of durum wheat, soft wheat and barley tailored to industry needs; introducing Teff as a “superfood” for animals; developing Camelina and Carinata for new generation aviation biofuels in cooperation with big oil companies and esteemed international universities.





“

These are
not just clever
tools.

They are
expressions of
a mindset:
that innovation
should serve
both people
and planet.

”

THE SEED IS PLANTED



Efthymios

opened a seed and bulb shop in Thessaloniki in 1935, Greece was still a largely rural country recovering from war, upheaval, and poverty.

He was a refugee from Eastern Thrace — a man who had lost everything, and yet believed deeply in new beginnings. His instinct was that agriculture would be central to Greece's future — and that with knowledge, commitment, and cooperation, farmers could thrive in a rapidly modernizing world.

He was right.

What began with a handful of seed packs in a small shop in the centre of Thessaloniki, developed into one of Southeast Europe's most forward-looking agricultural groups. And along the way, Efthymiadis Agrotechnologies learned — sometimes through effort, sometimes through hardship — the lessons that shaped its path.

*Seed
and bulb shop
in Thessaloniki*





Efthymios & Kitsa Efthymiadis

*“To know and to love your business.
This is the duty of the entrepreneur.”*

RESILIENCE

MEANS BEING READY TO ADAPT

No legacy is built without hardship.

Efthymiadis Agrotechnologies has gone through wars, economic instability, shifting regulations, market upheavals and crop failures. At least once, its very survival hung by a thread.

What made the difference? Adaptability. Whether restructuring operations, rethinking product lines, investing in new markets, or backing science when others hesitated, we responded with the courage to evolve.

“Our history is full of success stories, frustrating missteps and proud recoveries. They all help prepare us for what comes next.”

Nikos Efthymiadis

— SLEEVES ROLLED UP —

We actively support the next generation through internships, research collaborations with universities and mentorship programs that bring young scientists into the fold. We have actively built a corporate culture that encourages young executives to take on more responsibility and initiatives.

MADE *very well* IN GREECE



GROWTH COMES FROM PARTNERSHIP

No one feeds a nation alone.

Efthymiadis' greatest moments of growth came when it formed partnerships — not just with multinational suppliers like Bayer, Mitsui, Nufarm or Brandt, but also with farmers themselves.

In the late 1990s, the company introduced Contract Farming to Greece: a model that aligned the goals of producers, input providers, processors and end-users throughout the value chain. Farmers gained financial stability and technical support. Industries gained product reliability and traceability. And agriculture as a whole gained credibility in a global market increasingly focused on food safety and transparency. That same model now drives operations in the Balkans and beyond — proving that partnership is scalable, especially when rooted in trust:



Efthymiadis Agrotechnologies Headquarters in Thessaloniki


**SLEEVES
ROLLED UP**


KCB Agriscience — our joint venture with Mitsui in Southeastern Europe — combines local insight with global standards, modernizing supply chains and accelerating innovation.

REAL CHANGE

TAKES A GENERATION



“I came to understand that agriculture touches everything—from food security and climate adaptation to public health and social cohesion. What happens on the farm shapes not only what ends up on our plates, but far beyond.”

Thymis Efthymiadis

The Efthymiadis family has always thought “generationally”. It takes time to build trust, to mentor young professionals, to let a new idea take root in the field. But with patience, the returns multiply.

The long-term investment in people, research and innovation is visible today in our R&D centres, cross-border field trials and, most importantly, in the loyalty of clients who have worked with the company for decades. And perhaps the most powerful lesson is this:

To grow well, you must grow with others.

≡ SLEEVES ROLLED UP ≡

“Lucia’s Farm”, our Group’s consumer brand for high-quality fresh fruit and vegetables, is always working in partnership with individual growers or farmers’ unions on a contract basis, thus ensuring the maximum return to all parties involved, while providing the consumer with tasty, safe and traceable products.



INNOVATION

IS NOT OPTIONAL

Despite its deeply-rooted conservatism, agriculture has always advanced through leaps of change.

The company's first breakthrough came early: introducing Greece's first modern plant protection products of the pre-WWII era.

This was followed by building the country's first private cotton seed delinting facility, establishing the first plant tissue culture lab, initiating the hydroponic glasshouse technology and creating the first accredited lab for monitoring the quality, safety and hygiene of agricultural produce.

SLEEVES ROLLED UP

BIOS Agrosystems is developing gene-edited cotton lines for early-flowering in order to escape the later high-heat conditions. Vitro Hellas delivers virus-free rootstock tailored to the Balkan climate's shifting chill hours.



Bios Agrosystems Seed Processing Facilities in Xanthi



“True progress does not come with innovation per se, but with the ability to solve real problems. Rather than showcasing flamboyant applications for the few, let us focus on the discoveries and advance the technologies that can transform farming for the many.”

Vassos Efthymiadis

THE FUTURE BEGINS WITH ROOTS

Our commitment to the land began long before words like

“biorationals,” “regenerative agriculture,” or “NGTs” became common. And yet, our journey brought us to embrace all three.

These lessons are embedded in our brand DNA:

Science must serve nature.

We supported research when it was still a thing of the future. Today, we accelerate knowledge transfer from labs to fields.



Precision isn't a luxury, it's a lifeline.

From the simple soil analyses of the early days to the ultra-modern digital nutrient maps delivered by Veltia Labs and the targeted treatments via our digital tools, we have solidly established how even minor insights can save entire harvests.

— Veltia Labs Headquarters



Trust is grown season by season.

From Thessaloniki to Southeast Europe, producers who grow with us rely on long-lasting partnerships, not one-off transactions.



Every region is different. Every farmer, too.

Agriculture is not a spreadsheet. We've learned to tailor products and services — from biostimulants to satellite-enabled advice, to the microclimates and mindsets of those who cultivate the land.

Feeding people is more than logistics.

Our work with Lucia's Farm shows how green-house hydroponics can reduce water use by up to 60% without losing productivity, while enhancing nutrition and plant health — because sustainability must nourish both people and planet.



— CropApp digital farming

Innovation needs roots.

Our collaborations with Universities, Research Institutes and pioneering private R&D didn't emerge overnight. They are the result of long-standing relationships, built on mutual goals.



— Lucia's Farm, the first
branded tomato in Greece

***These are not conclusions.
They are signposts. Markers of how we grew.
Evidence that learning never ends.***

“

Predictions

”

By 2035, when Efthymiadis Agrotechnologies turns 100, the world will not be just more digital or more crowded. It will be more interdependent. More pressured. **And, we believe, more hopeful.**

Here's what we see on our horizon:

Ten harvests
from now





“

Dad,
will there
still be
enough
water for
everyone?

”



By 2035,
the global demand for freshwater
is projected to exceed available supply
by 40 percent. Climate-driven degradation
is reducing arable land through erosion,
salinisation, and desertification.
Crops are under stress. So are farmers.

The challenge is not only to use less water — it's to use it
better. That means helping the soil retain moisture longer.

It means irrigating only when and where needed.

And it means closing loops: recycling industrial water,
capturing rain, restoring wetlands, and improving soil biology
so that every drop works harder.

At the same time, soils themselves must be repaired.
Organic matter must be replenished, microbial ecosystems
restored and farming methods adapted to reduce
compaction and runoff.

In the next 10 years, we will need a full rethinking of inputs
— not just more targeted plant protection, but smarter plant
nutrition and a “soil-first” philosophy.

“

How
can we grow
enough food
for
9.1 billion
people?



”

Feeding a growing population
with shrinking land, limited inputs,
and a fragile climate means changing
the way we farm —and what we expect
from each field.

According to the OECD-FAO, 85% of global crop output gains in the coming decade will come not from planting more land, but from doing more with the land we already have.

That means smarter practices, improved genetics,
and high-tech nutrition.

Crucially, this shift must work under new constraints:
Europe is phasing out many conventional plant protection products, making most high-value crops harder to sustain without alternatives. In this context, plant health — not just protection — becomes the new paradigm.

Advanced fertilization, crop monitoring, and biostimulants will be needed to ensure plant strength from the inside out. The future of farming is not built on reaction. It is built on anticipation — and adaptation.

“
What
will farming
look like
in the
future?”

”



The next 10 years will bring a **complete digital transformation** of agriculture.

Fields will “speak” through sensors.

Digital platforms will unify weather, soil, pest, and irrigation data. Decisions will be driven by real-time modelling and delivered to machines that act autonomously.

Welcome to **data-driven farming** — where every action is being monitored and optimized, while remaining fully traceable.

Precision agriculture will shift to **crop-specific, zone-specific,**

even plant-specific advice. In high-value crops, individual plants may receive tailored nutrition and protection treatment.

Sprayers will be replaced by drones. Weed control may also come from laser-guided robots, apart from chemistry.

And traceability — including carbon footprint and energy use — will become a condition of access to markets.

For this future to work, it must be **accessible.**

Farmers need tools, not dashboards; insights, not an overwhelm.

The future is smart — but it must also be simple.

“
What
will
we eat?
”



By 2035, diets will be reshaped by health, environment, affordability, and access to food.

Obesity rates may climb above 50% globally — even as undernutrition persists in vulnerable regions.

The demand for better nutrition at a lower environmental cost

is already accelerating. Plant-based foods, precision nutrition, and biofortification are all part of the solution. So are smart supply chains and farming systems that deliver more nutritional value per unit of input.

Advanced nutrition will allow farmers to grow crops that aren't just high-yield, but high-impact: selenium-enriched cereals, protein-dense legumes, lower-gluten grains. New varieties like Teff and Camelina offer drought resilience, short growth cycles and integration into production systems with fewer inputs.

Meanwhile, insects will play a growing role — not only as food, but as protein feedstock, soil restorers, and pest managers. From greenhouse lettuce to lab-grown mycoprotein, the question is not “if” diets will shift. It’s “how fast.”

BIOS Agrosystems is trialing nitrogen-optimized protocols to increase legume protein content for alternative diets.

The Group already markets Teff as a forage crop as well as a climate-smart intercrop. Nutrition programs now include selenium-fortified micronutrients tailored to human health.

Lucia's Farm greenhouse tomatoes are grown with 45% less land, using renewable energy and no soil.

“
Will
farming
still be
a good job?
”



It will be a very different and **a very good job!** Farmers will still walk their fields. But they will also fly drones, scan leaf samples, read carbon footprints, and log every activity from irrigation to pruning. Digital literacy will be as essential as mechanical skills. Decisions will be made with data — and those who master that data will lead the way.

Automation will help close the labor gap. From robotic weeders to harvest assistants, new machines will take on repetitive or heavy tasks. This isn't just about efficiency — it's about making the profession viable again, especially in aging rural regions.

At the same time, **carbon tracking** will become standard.

Today it's optional; tomorrow it may define subsidies and market access. The digital platforms farmers already use will evolve into **compliance and certification engines**, helping growers sell smarter, grow cleaner, and maintain access to finance.

Farming will remain one of the oldest professions — and one of the newest.

9:41



The world in 2035

Heavily digitized

Most farm decisions will rely on AI, with field data integrated across platforms.

Bio-centric

Bio-solutions, bio-rational and bio-informatics will shape both crop and human health.

Resource-stressed

Regenerative practices and circular systems will become standard.

Traceable and accountable

Carbon footprint and input transparency will be non-negotiable.

Genomically agile

New genomic techniques could eclipse GMOs in speed and acceptance.

Our Innovation Horizon

“Food will
become
medicine,”

Through NGTs, science will enrich carrots with carotenoids for eye health, tomatoes with lycopene for cardiovascular strength. Farming and healthcare will converge.

“The 80/20
rule will flip,”

Through Digital Agriculture, 80% of decisions on the farm will be data-driven. AI will analyze leaf tissue, weather forecasts, pest alerts and suggest next steps.

“Carbon will be
counted and
optimized,”

Every input, every spray, every drop of water will be quantified and benchmarked. Farmers using digital apps will receive not just agronomic insights, but carbon scores and certifications connected to their access to the market but also to financial capital.

“Traceability
will be
mandatory,”

Buyers and end-users of agricultural produce will require to know exactly where and how food was grown. Smart platforms, linked to field logs and IoT devices, will make that traceability real-time and tamper-proof.

“Farming
will be
personalized,”

Sensors and AI will allow for tree-by-tree, vine-by-vine management. Aerial drones will apply laser-precision treatments only where needed — saving inputs, reducing runoff and lifting yields.

“Regenerative
will be
the norm,”

Intercropping, cover crops and low-input, resilient varieties will dominate marginal lands, thus reducing erosion and boosting biodiversity.

“Seed
sovereignty
will matter,”

With restrictions on third-country imports, Greece and Southeast Europe will need robust local seed development.



“Young farmers will return!”

Educated, tech-savvy and purpose-driven young farmers will replace the “average age 57” stereotype. They will not only fertilize and irrigate better — they will manage costs, carbon, and customer expectations in real time.

We will be ready
to embrace them.





EFTHYMIADIS
AGROTECHNOLOGIES

AGRICULTURAL SUPPLIES

PLANT PROTECTION & SEEDS

Greece, Bulgaria, Romania, Moldova, North Macedonia, Cyprus, Albania



PLANT NUTRITION

Greece, Serbia



SERVICES

INTEGRATED LABORATORY & CONSULTANCY SERVICES

Greece, Cyprus, Türkiye, Bulgaria, Romania



PLANTING MATERIAL

SEED PROPAGATION MATERIAL

Greece, Türkiye



PLANT PROPAGATION MATERIAL

Greece

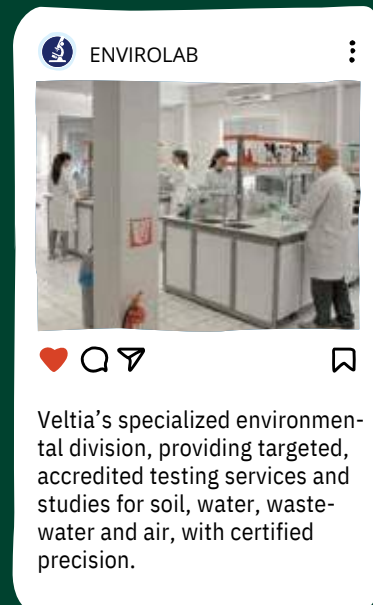
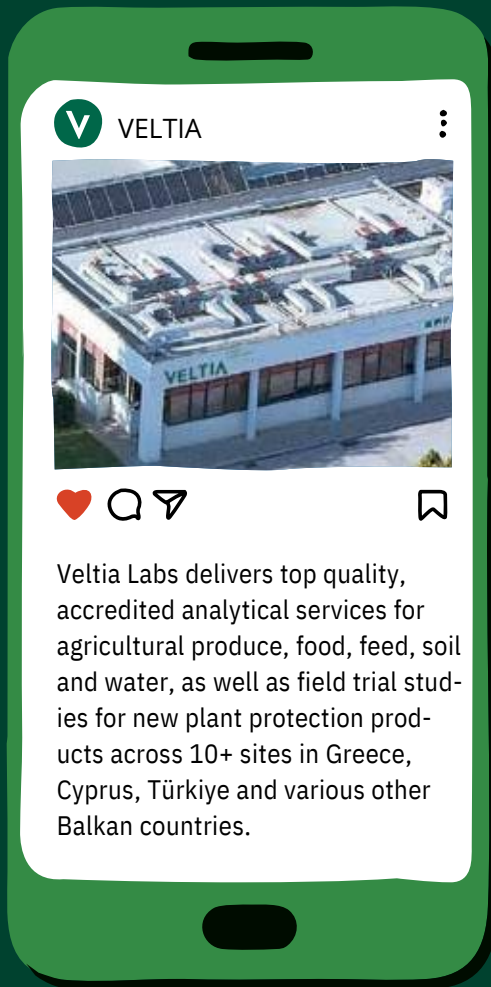


CONTRACT FARMING

QUALITY AGRICULTURAL PRODUCTS

Greece







K&N EFTHYMIADIS



The leading Greek company in the development, production and distribution of plant protection products, seeds and digital farming solutions.



KCB AGRISCIENCE



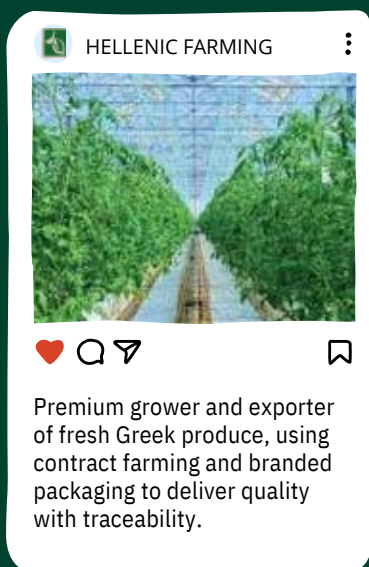
Aiming to develop into a major Southeast European crop protection player, KCB Agriscience unifies the operations of K&NE and Certis Belchim under one roof - offering integrated and innovative agrosolutions across 6 countries.



KNE BRANDT



The new speciality fertilizer and biostimulant company, fuelled by the joint power and expertise of its founders, K&N Efthymiadis and BRANDT USA.





BIOS AGROSYSTEMS



Production, processing and R&D of certified planting seeds, developed from genetic material originating from its in-house research or from international partners.



BiLiv



A ultra-modern seed production, processing and bagging facility in Urfa, the heart of Türkiye's top region for field crops, specializing in cotton and cereal certified planting seeds.



PRIME GENETICS TR



Developing planting seed distributor, specializing in the commercialization of cotton, maize, sunflower and cereals, serving Türkiye and regional markets with top-tier genetics.

“

What do
YOU
think the world
will look like
when we turn
100?

”

With this publication we celebrate
the 90th Anniversary of
Efthymiadis Agrotechnologies.

We sincerely hope you
enjoyed reading it.

We also invite you to join us in
supporting the future of
agriculture - with trust, science,
and local knowledge as our
compass.

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Publication Curators:
Loukia Efthymiadis
Mary Efthymiadis

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Colibri Branding & Design

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EFTHYMIADIS
AGROTECHNOLOGIES
HEADQUARTERS

Industrial Area of Thessaloniki
570 22 Sindos, Greece
T. +30 2310 568656
E. info@redestos.gr
www.redestos.gr

“

**decisions we make today
shape the world
our children will inherit
tomorrow**

”

