

Success Stories

Combining agricultural insights and enhanced product performance to achieve excellence in the field



Content

Our success stories are grouped in 3 categories:

Creative use of technology

Unconventional use of product, compound, AI or technology; R&D breakthrough.

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Connecting the dots

Demonstrated ability to point out new opportunities based on insight into the needs and dynamics of the agricultural value chain.

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Promotional success

Successful activities that contribute to building a stronger brand perception in markets around the world.

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Connecting AgCelence® product performance to greater brand value!

AgCelence® identifies a strong family of products, which bring great customer value from reliable and proven performance beyond crop protection.

AgCelence® products often produce great stories which demonstrate totally new approaches to value creation. Such stories create excitement around the brand, enable stronger relationships with growers and thus build a competitive advantage.





01

What if AgCelence® products could double yield in extreme climate conditions?

White night effect

Observation

Extreme climate conditions such as long summer days in Northern Russia are disrupting rapeseed growth and making it jump from one growth stage to another too quickly which lowers the potential yield.

Solution

The use of AgCelence® products shortens and thickens the main stem as well as stimulates rooting which leads to a slower and more gradual development of the plant resulting in higher yield.

Context

Growth and development of summer rapeseed occurs during spring and summer conditions, which are characterized by increased sun insolation, long daylight (shorter nights), higher air temperature and uneven precipitation pattern. In Northern Russia the so-called “white nights effect” occurs: when the sunlight day is longer than 14 hours, rapeseed starts to quickly jump from one development stage to another and develops uneven and too fast, which means that less side branches develop and less productive pods ripen.

As a result, the crop loses potential yield. Using AgCelence® products, BASF Russia conducted big scale farm trials and practical in-field tests with the All-Russian Rapeseed Institute: the results have shown that AgCelence® products reduce this “white nights effect” through shortening and thickening of the main stem, stimulating side branch development and rooting as well as breaking down the development speed of the plant. This leads to slower and more gradual plant growth ensuring that rapeseed realizes its full yield potential in extreme climate conditions.

Our AgCelence® way of thinking

Not every AgCelence® effect is a global phenomenon, but it can matter a great deal to certain growers in a local market. Our country teams are the eyes and ears for potential AgCelence® innovation.

Product: Caramba®

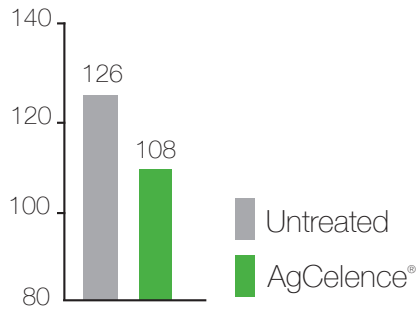
Country: Russia

Especially interesting for: Belarus, Kazakhstan, Baltics

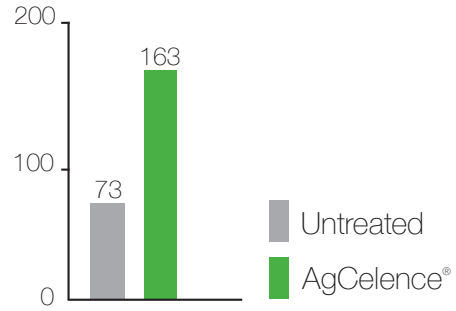


Proof Points

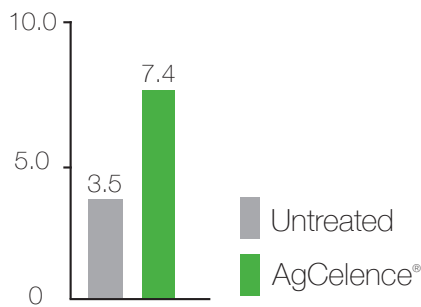
Average plant height (cm)



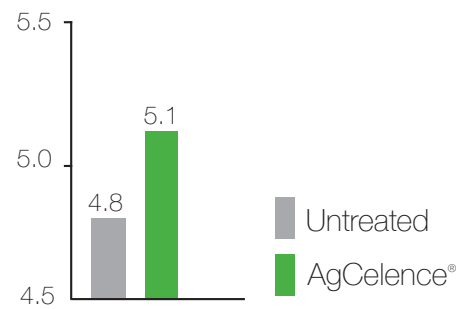
Number of pods



Average additional shoots




Weight of 1000 seeds (g)



» After the AgCelence® product treatment the plants became notably stronger, started to branch and the pods acquired saturated green coloring. This influenced the OSR yield amounting to 24 dt/ha «





What if AgCelence® products
could improve industry food
processing?

02

Tomato Brix content

Observation

The sugar content in tomatoes is a crucial factor for food processing companies such as Unilever, which is able to save nearly USD 0.5 Million in their industry process for each 0.1° Brix increase.

Solution

The use of AgCelence® products in tomato increases photosynthesis causing the plant to produce more energy and thus higher quantity of sugar content, which subsequently boosts the crops' marketable quality.

Our AgCelence® way of thinking

With AgCelence® we look beyond what happens on the field. We look for additional sources of value on behalf of growers in their own value chain.

Context

Big players in the processing industry are willing to pay farmers a premium for tomatoes that are rich in sugar content (i.e. have a high Brix value). In tomato plants the hormone ethylene normally causes the natural ripening process, but when crops are under stress, this process can be triggered too early. Premature ripening reduces the greenness of the leaves and in turn prevents the plants' photosynthetic activity that gives it energy to create sugar content. A serious concern for tomato farmers.

AgCelence® products deliver remarkably better stress management, which is clearly evident from the plants' greener leaves. While ethylene is reduced, the photosynthetic activity is stimulated and more energy created which is the source to establish higher sugar content. Simultaneously, the increased energy significantly improves the number and weight of tomatoes per plant, leading to higher returns per hectare. Altogether, this enables the farmer to compete in the global market place with higher volumes and better quality tomatoes. Trial results have shown Brix content increase up to 12% following the AgCelence® product treatment. A strong benefit for the entire food value chain.

Product: Cabrio® Top, Cantus®

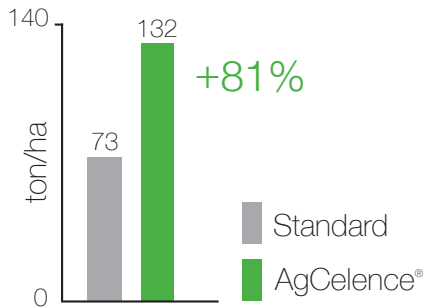
Country: Spain

Especially interesting for: APE, APS, APA

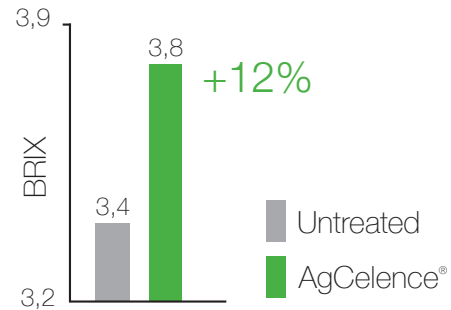


Proof Points

Yield evaluation, hybrid H 3402
BASF Trials, Goiania (Brazil), 2007



Quality evaluation, hybrid H 9553
BASF Trials, Patrocínio - MG (Brazil), 2006



» For me, AgCelence® means that my tomatoes don't just look good. They're of the highest quality. That's why I don't just sell them around here, but to food processors around the world.«





03

What if AgCelence® products could grow market potential with exports around the world?

Grape shelf life

Observation

Fruit growers are competing on a global scale. However, distant shipments can be a complex and risky factor in the transportation process causing unacceptable fruit quality at arrival in the export market.

Solution

The pre-harvest application of AgCelence® products protects crops during long transportation and maintains healthier fruits with a greener core.

Context

Demand for high quality fruits regardless of the season has increased global competition for grape growers. A major challenge for farmers is to maintain quality fruit and avoid waste during long shipment periods that last up to 60 days. A critical factor for consumers is the visual appeal when making their purchase decision and too often fruit loses its color and dries out during the journey. This is unacceptable for consumers.

Treating grapes with AgCelence® products during pre-harvest has shown a clear advantage in the quality of the crops that reach the export markets. The plant stem remains fresh and the grapes keep a greener and superior color in comparison to grapes treated with standard products. For grape growers in Chile, pre-harvest application of AgCelence® products enables them to ship superior quality grapes even to Asian markets. With minimal waste during transportation they maintain competitive pricing and multiply their market potential.

Our AgCelence® way of thinking

AgCelence® effects have no geographic boundaries. We are looking at the global food chain and let these insights enter our AgCelence® product development.

Product: Bellis®

Country: Chile

Especially interesting for: APS



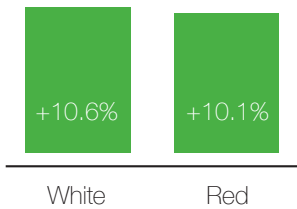


» Our data show a clear advantage in crops treated with AgCelence® indicating superior color quality upon arrival in distant export markets.«

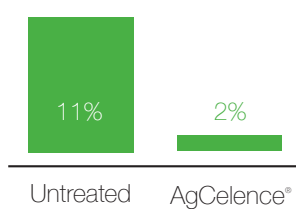
Proof Points



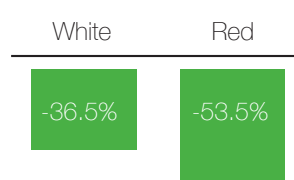
Higher cluster weight thanks to AgCelence®



82% less cracking defects thanks to AgCelence®



Reduced shattering thanks to AgCelence®



04

What if a combination of AgCelence® products would multiply the effects?

AgCelence® Systems

Observation

Farmers are always looking for the best combination of products in their spraying program and have to choose from many different products and suppliers. This makes it a time intensive and complex decision.

Solution

The use of combined AgCelence® products that together form one crop solution applied at different growth stages results in even bigger yield impact on harvest.

Context

Throughout the growth process, farmers are experiencing many natural influences that negatively impact the development of their crop. For each growth stage of the plant they have to choose from many possible products that help them in protecting their crops to maximize the yield potential. This leads to a complex and risky set of decisions to compile a spraying program. For many farmers individual AgCelence® products were already known as effective tools in combatting pests, but were always combined with additional products from various suppliers.

An AgCelence® system is a combination of different AgCelence® products that was tested as a spraying program throughout the growing process. They do not only perfectly work together, they also contribute different benefits that perfectly add up to maximize the yield impact. In fact, the performance of AgCelence® systems in over 82 soybean demo plots in Bolivia showed yield increasing up to 800 kg/ha with an average increase of 344 kg/ha. In Argentina and Brazil similar effects were registered in cotton, sugarcane and corn.

Our AgCelence® way of thinking

Combining AgCelence® products offers farmers more effective solutions and it opens up new ways of having a conversation with them or to start it earlier in the season!

Product: AgCelence® System

Country: Argentina, Bolivia, Brazil

Especially interesting for: countries with new product launches



Proof Points




Standak® 677.80 g

Standak® Nitragin 957.57 g

AgCelence® 1068.56 g



» I know that AgCelence® systems are the best solution for healthy plants and maximum yield.«



What if AgCelence®
products could increase
harvesting speed?

05

Harvester speed

Observation

Lodged corn is a common challenge for farmers as it decreases yield and makes harvesting a time intensive job.

Solution

Applying AgCelence® products in corn improves stalk strength and reduces lodging which results in easier and faster harvesting that can lead to significant cost savings.

Context

In the U.S., corn growers experienced the AgCelence® effect visually on the field and physically when harvesting their crop. Together with BASF they analyzed the effect and found that AgCelence® treated corn grows stronger and is more resistant to lodging. Apart from the ability to harvest more yield they discovered an additional benefit that growers did not expect. Under previous circumstances the lodged corn would block the harvester when driving through the field. With AgCelence® the stronger plants grow straight and aligned which makes them easier to harvest and enables a significant increase in harvesting speed.

On an AgCelence® treated field a harvester is able to accelerate from 3 MPH to 5 MPH leading to multiple benefits. Growers with a 1000 acre field on average benefit from saving 55 harvesting hours which not only reduces working time but also saves labor cost, harvester rent, lowers fuel cost and reduces CO2 emissions. Altogether, using AgCelence® products on a 1,000 acre corn field results in over USD 21,000 cost savings, a strong benefit farmers did not expect.

Our AgCelence® way of thinking

Innovation may just “walk in the door” with your next customer who tells you something new about your own product. AgCelence® is all about listening to and working with customers.

Product: Headline®

Country: USA

Especially interesting for: Markets with modern machinery

Similar values can be experienced in: Cotton in India



» Using AgCelence® products I can cut harvest time by 55 hours and save 40% on operational cost.«



Proof Points

1,000 acres / 404,7 hectare



3 mph / 5 km/h

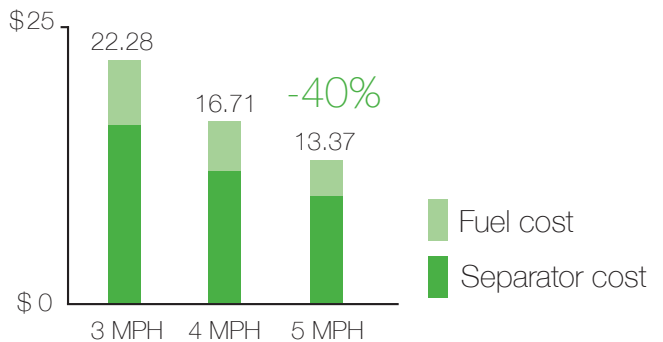
138 separator hrs.
\$16,560
1,930 gal. fuel
\$5,790
\$22.28/acre
14 days



5 mph / 8 km/h **with AgCelence®**

83 separator hrs.
\$9,960
1,160 gal. fuel
\$3,480
\$13.37/acre
8.5 days

Operating cost per acre





What if AgCelence® products could improve farm efficiency and quality of livestock feed?

06

Silage consistency

Observation

It is challenging for livestock farmers to harvest maize at the right time to optimize quality of cobs combined with the right size of green leaves to process into well structured silage.

Solution

The application of AgCelence® products in corn ensures reliable growth of greener plants that enables uniform chop size, creating better silage structure and improved storage stability, which eventually leads to more consistent and predictable quality of livestock feed.

Our AgCelence® way of thinking

AgCelence® benefits are not always obvious. Sometimes they require a closer look, or a second thought to whom a plant health effect could be beneficial.

Context

Livestock farmers require the best quality and most cost efficient feed for their livestock. Maize is an important part of cows' diet and for farmers it can be challenging to find the right harvesting moment at which they can assure high cob quality combined with the optimal size of green leaves which are necessary to prepare the optimal silage structure.

The application of AgCelence® products helps the plants stay greener for longer and give farmers more flexibility in harvesting. This enables the cobs to fully develop, grow bigger and create a higher percentage of dry-matter and energy contents that improve the feed quality. The green leaves grow in more consistent sizes which enables the harvester to cut them in uniform chop sizes and thus improve the quality and storage stability of the silage. Finally, greater yield and increased fresh matter per hectare enables the farmer to save space for cash crops. Altogether, the AgCelence® effect for livestock farmers results in improved efficiency and higher quality feed for livestock.

Product: Opera®

Country: Denmark

Especially interesting for: APS and APE

Similar values can be experienced in: Livestock in Costa Rica



Proof Points

	Kg DM*/ha	FU/ha	Kg DM/FU**	Add. FU/ha	Add. Value €/ha
Untreated	12,870	11,094	1,16	-	-
AgCelence®	14,750	13,053	1,13	1,959	274

*DM = Dry Matter; **FU = Feeding Unit

1 Scandinavian FU = net energy value in 1 kg barley at 85% DM

1 Danish FU = 14€cent (1,05Dkr) in production of maize, VFL Budgetkalkulen

» I focus on full development of the cobs for maximum starch and energy for my cows.

It's bringing me flexibility for harvest, and even better structure of silage «





What if AgCelence® could
enable countries to grow
enough food to feed their
entire population?

07

Solving big challenges for society as a whole

Observation

Some countries, like Indonesia are depending on food imports and are not entirely self-sufficient when it comes to growing essential crops such as rice. Therefore, there is a strong need for more efficient farming practices.

Solution

Innovation in growing techniques contributes to higher efficiency, enabling farmers to grow more and higher quality crops, improving the livelihood of farmers and consumers alike, and ultimately helping the entire country to become self-sufficient in the production of key crops.

Our AgCelence® way of thinking

AgCelence® is bigger than just one product. Applied to the right context, with foresight and imagination, it can play an integral part in the solution of major agronomic challenges.

Context

With a growing world population the demand for essential crops such as rice is outgrowing the offer. Some countries like Indonesia are already dependent on imports from abroad. Indonesia recognizes this problem and has set itself the goal to produce enough rice to feed its growing population. Leading Indonesian rice experts and BASF specialists believe that innovation in rice growing techniques such as AgCelence® will contribute to improve crop quality and increase yields that are needed to produce enough rice. Educating farmers can be a challenge as Indonesia is home to a large number of farmers operating on a small scale. To reach them, BASF collaborates with education programs such as Mitra Tani AgCelence®, Farmers Field School and Farmers Meeting.

Farmers learn how AgCelence® can increase yield and crop quality and BASF offers tailor-made formulations for rice farmers. These formulations allow for high tech controlled AI-release with delayed and very limited affect on paddy water. Altogether, AgCelence® improves the livelihood of farmers and fosters a healthy environment while empowering the nation to become independent from rice imports.

Product: Seltima®

Country: Indonesia

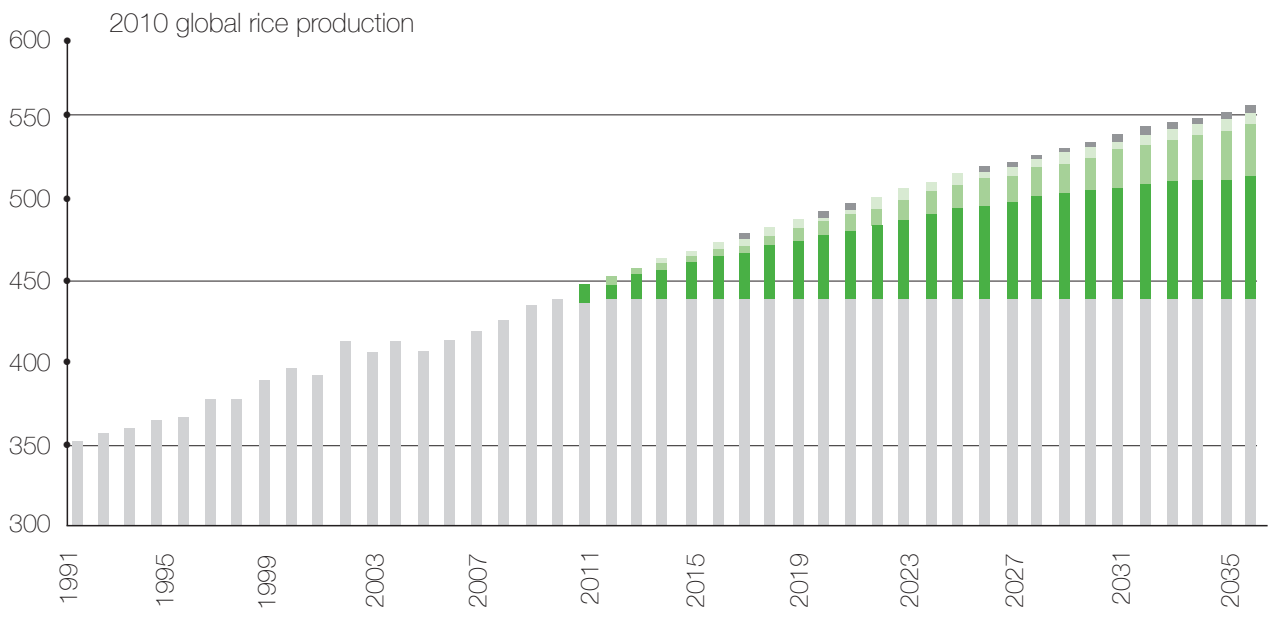
Especially interesting for: APA, APS and APE





» With AgCelence® I can count on bigger yields and higher quality produce. «

Proof Points



Additional rice needed:
116 million tons by 2035

■ Asia ■ Africa ■ America ■ Rest of World

A close-up photograph of a hand holding a single yellow seed between the thumb and index finger. The hand is positioned above a mound of dark, rich soil. Several other yellow seeds are scattered on the soil surface, some in sharp focus and others blurred in the foreground and background. A semi-transparent green rectangular box is overlaid on the left side of the image, containing the number '08' and a block of text.

08

What if farmers would instantly understand the benefits AgCelence® products could give them?

Launch event

Observation

Farmers avoid risk and are price sensitive when choosing their crop protection products and brands.

Solution

The AgCelence® launch event is the ideal occasion to get attention, demonstrate the AgCelence® effects and be in a dialogue with growers.

Our AgCelence® way of thinking

AgCelence® is an emotion, a way of thinking. And when customers see AgCelence® products in action, they can see for themselves. It's more than a thousand data point could tell.

Context

When AgCelence® was launched in Poland in 2013 the brand was still unknown and had the opportunity for a fresh launch into the market. The key objective was to build a strong brand in line with the AP 2020 strategy that puts the farmer in the focus. In order to create buzz around the brand, BASF launched a national image campaign that evoked curiosity around the brand promise "Expect more".

The next step was a launch event to which key growers were invited to experience the AgCelence® "Expect more" effect. The event was organized in collaboration with John Deere and showcased life harvesting of an AgCelence® treated corn field to proof the effect. During the life harvesting event and further press conferences BASF engaged in a dialogue with farmers to explain the brand and address any doubts the farmers still had. Important farmers visited the events and many more were reached by the corresponding advertising campaign and media publicity.

Activity: Promotion

Country: Poland

Especially interesting for: APA, APS, (re)launch countries

Similar values can be experienced in: AgCelence® Center



»After the AgCelence® launch event I wanted to test the AgCelence® effect on my own crop.«

Sales increase during the year following the AgCelence® launch

12%



What if AgCelence®
could improve and enrich
profound relationships?

09

AgCelence® Center

Observation

In China, AgCelence® products cannot be promoted with the plant health definition and benefits directly on the product packaging or in the POP. Moreover, the vast size of the country makes it challenging to establish direct communication between BASF and farmers.

Solution

BASF opened the first AgCelence® Center in China where farmers experience the brand and witness live demonstrations of the AgCelence® effects while establishing a personal relationship with local AgCelence® specialists.

Our AgCelence® way of thinking

Creating moments of direct interaction with customers and taking control of our brand story is always a good idea.

Context

In China, BASF was facing difficulties to sell AgCelence® products due to regulations restricting communication of the plant health definition and benefits directly on the product packaging or in the POP. Therefore, an initiative was taken to communicate AgCelence® benefits directly to growers and show them how AgCelence® products can solve their crop problems. As a result the first AgCelence® Center was opened in 2014. This unique platform is a place where farmers meet professionals and learn about the latest technologies and optimal solutions for their crops. Simultaneously, it serves BASF as a platform to capture, confirm and understand farmers needs.

The center hosts weekly AgCelence® expert sessions and functions as a fixed space where farmers, retailers, local experts, BASF promoters and sales reps can meet face to face and learn from each other. The center itself showcases innovations, sustainable solutions and educates visitors about BASF and the AgCelence® brand. In collaboration with nearby farmers, an Innovation Garden is linked to the center to demonstrate the AgCelence® effects. The first centers have been a great success in raising brand awareness and building strong relationships with farmers. Therefore, BASF plans to open 20 more AgCelence® Centers by 2017.

Activity: Promotion

Country: China

Especially interesting for: any (re)launch countries

Similar values can be experienced in: launch event



» The AgCelence® Center is a great place to meet experts and learn how to improve the growth of my crops. «



2000

Visitors in the first year


269%

Sales increase by one BASF retailer

20

more centers to open in China





What will be our next success story?
Looking forward to your contribution.

Global Brand Management &
Marketing Communications AgCelence®
info-agcelence@basf.com



www.agcelence.com