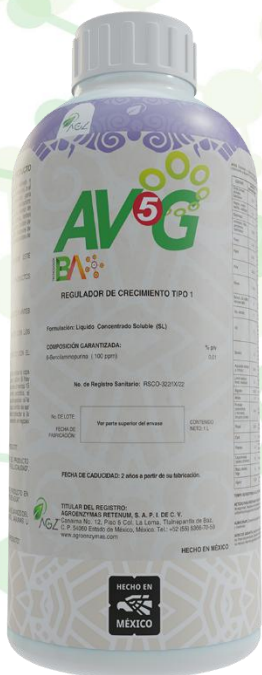


Technical Data Sheet



AV5G® WITH BA TECHNOLOGY

GENERAL INFORMATION

Category

Biostimulant

Guarantee of composition

	Content % w/v
Cyanobacteria extract (microalgae)	5.00%
6 (Benzylaminopurine) 100 ppm	0.01%
Nitrogen	4.00%
Boron	2.07%
Molybdenum	0.02%
Conditioners	88.99%
+ Terrestrial Extract	
+ Microbial Extract	

Key feature

AV5G® is a new generation biostimulant, formulated with BA technology (microbial extract), based on an extract of terrestrial origin and enhanced with an extract of cyanobacteria (microalgae) designed to ensure rapid integration of the compounds in the formulations. Due to its high peptide content, it helps stimulate vegetative development, allowing the crop to express its maximum genetic potential.

Manufacturer / Formulator / Distributor

IQ Chemicals & Labs S.A. de C.V.
IQ Chem & Labs S.A. de C.V.
Agroenzymas México S.A. de C.V.

Registration

RSCO-322/IX/22

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MODE OF ACTION AND EFFICACY:

AV5G® with **BA** technology is an extract from cyanobacteria (microalgae) that stimulates plant growth and development, allowing them to express their maximum genetic potential thanks to the following characteristics:

- **BA Technology.** Patented technology that incorporates the high bioactivity of microorganism metabolites and their effect within the plant energy cycle. This technology was designed from the outset to promote the ideal environment for facilitating the foliar absorption of biostimulant, bioregulator, and/or fertilizer compounds.
- **The origin, extraction, and contents of microalgae.** Due to their origin, the cyanobacteria contained in AV5G® BA have an adequate and balanced content of phytohormones (mainly cytokinins, followed by auxins and gibberellins), high amino acids (glutamic acid, arginine, aspartic acid, glycine, lysine, leucine, among others), vitamins (E, B5, B9, and B1), sugars (laminaria, fucoidan, and cellulose), elicitors (betaine, sterols, polysaccharides, and mannitol), as well as mineral nutrients.
- **Terrestrial extract.** The extracts that complement the **AV5G® BA** formulation have biological effectiveness on all plant organs, notably: root formation, harmonious vegetative growth, increasing the effectiveness of other materials when mixed, flower and fruit setting, and fruit quality.
- **Microbial extract.** The microbial extract contained in AV5G® BA increases plant tolerance to adverse conditions, improves fruit consistency, and allows for harmonious growth and development in crops.
- **Active natural cytokinin.** **AV5G® BA** contains bioactive natural cytokinins, ensuring high biological effectiveness within crops.
- **Solubility.** Thanks to its extraction and purification process, it is the most soluble product on the market and retains its original contents in a highly assimilable form.
- **Stability.** The source of the **AV5G® BA** components and their proportions allow each of them to remain in optimal stability conditions both in the formulated solution and during their shelf life.
- **Essential elements.** **AV5G® BA** contains boron and molybdenum in the right concentration to stimulate various processes. Boron is essential for stimulating proper pollen tube germination during pollination and for achieving adequate fertilization, while molybdenum is essential for the flower to make good use of nitrogen, as it is a component of nitrate reductase, which leads to proper fruit set. Likewise, both elements are required for various metabolic functions in the plant.

METHOD OF APPLICATION:

AV5G® BA is designed to be applied via foliar spraying on crops. It is completely soluble in water, and it is recommended to dilute it in the amount of water necessary to achieve total coverage of the crop, as well as to use adjuvants.

To prepare it, it is recommended to fill the tank with 50% water, shake, add AV5G®, and then fill with the necessary amount of water.

PRECAUCIONES ESPECIALES:

No special equipment is required; however, it is recommended to wear appropriate protective gear such as gloves, waterproof overalls, and safety glasses when handling and applying the product. It is also recommended to follow the recommendations for agrochemical products with which it is mixed.

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GENERAL RECOMMENDATIONS:

The effectiveness of **AV5G® BA** can be increased by considering the following points:

- Application stage. Applications can be made throughout the crop cycle, although applications in early stages of crop development are more stimulated by **AV5G® BA** even at low doses. Likewise, due to its components, **AV5G® BA**, when applied at critical stages of growth (pre-flowering, during flowering, and post-flowering), stimulates adequate pollination, fertilization, setting, and flower and fruit quality.
- Frequency of application. It is recommended to apply **AV5G® BA** specifically during critical periods of growth and development (transplanting, flowering, and post-flowering), which ensures rapid crop growth and/or adequate organ formation. Likewise, frequent applications (at intervals of 7-10 days) at low doses stimulate harmonious crop development and increase the plants' defense compounds against adverse conditions.
- Managed dosage. Low doses are recommended if the frequency of use is high (intervals of 7-10 days) and high doses if the frequency of application is low (intervals of 15-30 days). Likewise, low doses are recommended in the early stages of crops and high doses in advanced stages.
- Mixing with other agrochemicals. **AV5G® BA** has been shown to enhance the effect of other agrochemicals (fertilizers and bioregulators) and make the use of others more effective (fungicides, bactericides, and insecticides).

EFFECTS ON CROPS:

AV5G® BA presents the following actions within crops:

- Increases plant growth. The compounds and elements that make up the **AV5G® BA** formulation are easily assimilated via the leaves and have high biological bioactivity via hormonal action, amino acids, carbohydrates, elicitors, and other compounds, thereby promoting physiological functions such as photosynthesis and gas exchange, stimulating harmonious growth and biomass gain in crops.
- Increases tolerance to abiotic stress. Algae extracts contain a series of elicitor compounds that activate genes that stimulate defense compounds in adverse conditions (antioxidants, osmolytes, secondary metabolites, among others), so the recurrent application of **AV5G® BA** to crops helps maintain plant defense against adverse abiotic conditions.
- Improves plant recovery after stress. The essential nutrients contained in **AV5G® BA** are present in the right amount and balance to stimulate the growth and development of plants that have undergone adverse conditions.
- Increases the number and quality of flowers and fruits, thereby increasing yield. The hormonal content and balance (mainly cytokinins) contained in **AV5G® BA**, as well as its various bioactive compounds from algae, generate harmonious vegetative development, increase the number of flowers and fruits set, as well as their weight and quality.
- Increases crop quality and fruit shelf life. The components of **AV5G® BA** stimulate the action, formation, and expression of plant hormones, resulting in the formation of better harvestable organs, as well as a greater quantity of fresh and dry matter.

PHYTOXICITY:

AV5G® BA is not toxic to crops when used in recommended doses.

Do not contaminate water, food, or animal feed when storing or handling the product. Keep it in its original container. • Storage: Keep in a cool place. • Product disposal: If the material is not used in its entirety, keep it in its original container until it is used. • Do not remove the label or repackage the product.

Container disposal: Do not reuse the container. Do not refill the container. Take to collection centers. Triple wash as follows: Empty the remaining contents into a waste tank for 10 seconds until the container begins to drip. Fill the container 1/4 full of with water and shake. Shake for 10 seconds.

Pour the rinse into the waste container, repeat the operation from side to side, and repeat a third time from top to bottom.

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COMPATIBILITY:

AV⁵G[®] BA is a liquid formulation, fully compatible with fertilizers and pesticides with neutral to slightly acidic action that are currently registered. If the origin of the material is unknown, it is recommended to perform a small stability test.

CROP	DOSE (L/ha)	APPLICATION SEASON
Chili peppers, tomatoes, eggplants, and bell peppers	0.5 - 2.0	- Start of vegetative growth and repeat every 15 days. Low dose during vegetative growth. High dose during flowering and fruiting. - During stressful conditions: Low dose frequently (7-10 days).
Cucumbers, melons, watermelons, and squash	0.5 - 2.0	- Start of vegetative growth and repeat every 15 days - During stressful conditions: Low dose frequently (7-10 days).
Asparagus	1.0	Apply after harvest, repeating every 20 days.
Blueberries, strawberries, blackberries, and raspberries	1.0 - 2.0	- Start of vegetative growth and repeat every 20 days. Low dose during vegetative growth. High dose during flowering and fruiting. - Stress conditions: Low dose frequently (7-10 days).
Roses	1.0 - 2.0	- Start vegetative development and repeat every 15 days throughout the cycle until harvest. - During stressful conditions, apply low doses frequently (7-10 days) during the critical period.
Potatoes	1.0 - 2.0	- Start vegetative development and repeat at tuberization. Use low doses at the beginning of cultivation and high doses during tuber development. - During stressful conditions, apply half the dose frequently (10-15 days).
Pineapples	2.0 - 3.0	- Start vegetative development after transplanting and repeat every 20-30 days. Low dose during vegetative growth. High dose during flowering and fruiting. - During stressful conditions, apply the low dose frequently.
Flowers	2.0 - 4.0	- Start applications on vegetative growth after transplanting and repeat every 15 days during critical periods (buds and prior to cutting). Use a low dose in the early stages of development and a high dose during the formation of floral organs. - During stressful conditions, use a low dose at short intervals (every 10-15 days).
Cabbage, cauliflower, lettuce, and celery	1.0	- Apply the first treatments at the start of vegetative growth and repeat every 10 days. - In adverse environmental conditions, apply half the dose consistently (every 7 days).
Garlic and onion	0.5 - 1.0	- Start application during vegetative activity and repeat every 15 days throughout the cycle. - Adverse environmental conditions: Half the dose at short intervals (every 7 days).
Grapevine (industrial)	1.0 - 2.0	- Apply at the beginning of sprouting (10-15 cm sprouts) and 10 days later. - Apply after fruit setting is complete and repeat when hormonal applications for fruit size are made. - Apply 20-30 days after harvest and repeat every 20 days. During conditions of extreme stress, apply the low dose every 12 days.
Table grapes	2.0	- At the start of vegetative growth and repeat every 15 days. - Apply mixed with gibberellic acid during berry growth.

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Bananas	1.0	- Seedlings: at the start of vegetative growth after transplanting and repeat every 15 days. - Established plants: Under conditions without obvious stress, apply every 20 days. Under adverse temperature conditions (low or high), apply every 15 days. If adverse conditions are severe and constant, apply half the dose with each spraying cycle.
Avocado, mango, and citrus fruits	1.0 - 2.0	- Apply at the beginning of sprouting and repeat every 30 days. Use a low dose at the beginning of sprouting and a high dose at the time of flower differentiation and during flowering and fruit development. - Under adverse conditions, apply a low dose at 15-day intervals.
Persian lemon and Mexican lemon	1.0	- Apply at the beginning of sprouting and repeat every 20 days until flowering and small fruits of 20 mm. - Under adverse conditions, apply at 15-day intervals.
Cotton	0.5-1.0	During vegetative growth, repeat at the beginning of plot delimitation.
Alfalfa	0.5-1.0	During vegetative growth and 5 days after each cut.
Deciduous fruit trees (apple, peach, and plum)	2.0 - 3.0	Apply at the beginning of sprouting. Repeat 10 days after petal fall and again when fruits reach 2 cm in diameter. Use a low dose at the beginning of growth and a high dose after flowering.
Coffee	1.0	Apply when flowers form and repeat during flowering.
Legumes (green beans and peas)	1.0	Start of vegetative growth and repeat on the first flowers and pods.
Corn, barley, and wheat	1.0	Apply during vegetative growth. Repeat during formation of the organ of interest.
Agave	1.0 - 2.0	Apply to leaf growth, repeat every 45 days during the season. Dosage according to plant age.
Orange and tangerine	2.0	At the start of vegetative growth and repeat every 20-30 days.
Walnut, almond, and hazelnut	2.0	Apply at the start of vegetative growth and repeat every 20-30 days. Apply with 50% female flowering to improve fruit size.