

# TESTIMONIAL



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## Effective Microorganisms (EM) in Horticulture: A Sustainable Approach for Enhanced Crop Health and Yields

The use of Effective Microorganisms (EM) in horticulture has proven its effectiveness in various agricultural domains. They contribute to maintaining the health of cultivated crops and maximizing yields. EM can be applied both to the foliage and the roots, resulting in more vibrant flower and leaf colors.

An essential aspect of utilizing EM in horticulture is its ecological sustainability. Given the increasing pressure for pesticide regulation and the rising demand for high-quality products and food, alternative solutions are sought after. EM provides a natural method to enhance plant health and reduce the need for chemical pesticides.

To achieve an effective application of EM in horticulture, a specific application method is required. ULV aerosol generators have demonstrated their efficiency and time-saving advantages. These devices enable precise distribution of EM onto the plants and optimal absorption through the foliage.

Gardener Martin Schaertl, who manages a 4,000-square-meter operation in Germany, tested the application of EM on cut chrysanthemums over an area of 700 square meters. He began by applying the initial EM preparations over a four-hour period from 5:00 PM to 9:00 PM. Subsequently, he kept the ventilation closed until 8:00 AM the following day and even maintained shading for 24 hours. Despite a slight dew formation on the leaves, no damage occurred after three days. Encouraged by these results, he slightly adjusted his recipe and continued with weekly nebulization. He used a five-percent concentration of EM, six liters per greenhouse, until the chrysanthemums began to display color. Despite the high concentration, there was no damage; instead, he observed beautifully dark green leaves. Additionally, stunting the chrysanthemums was unnecessary. His conclusion: „Well-nourished without a gram of chemicals.”



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Martin's core solution comprises products like MK 5, BB Blatt, MK Boden, Terrafert, and Biplantol. He exclusively uses Multikraft products, as mixtures with other preparations led to damage. Martin continues to rely on EM application, as it significantly helped in reducing pests like aphids and thrips.

Similar positive outcomes were achieved with poinsettias. By nebulizing EM with a three-percent concentration, the plants not only exhibited deep green colors but also proved resilient enough to withstand a nighttime temperature drop to 10 degrees Celsius without any harm, even for delicate varieties. In the case of Erysimum, successful work was conducted through cold fogging with a concentration of up to five percent. In primroses, they remained compact and grew as if stunted, similar to when using Tilt or Bonzi, due to the biostimulants.

In the bedding and balcony assortment, the use of biostimulants and the misting procedure consistently avoided chemical inhibitors. Still, Martin Schaertl maintained or even improved the high-quality standard. He also managed to effectively control pests throughout the year, as the misting procedure impacted from the top, and through the ebb and flow system from the bottom. The only challenge that remains is dealing with additional purchases, which he is currently working on addressing.

The use of biostimulants allows for a significant reduction in chemical application throughout the year, if not complete avoidance. Schärtl summarizes his experience as „Achieving the best quality with a light touch.“ Thus far, no incompatibilities have arisen in his operation.

The application through the ULV aerosol generator is extremely time-efficient. Instead of manually applying 100 liters, he fills six liters into the Unipro5 cold misting device, presses the button, and can enjoy a coffee break during the process.

Compared to misting devices with fans, the ULV aerosol generator Igeba Unipro 5 offers clear advantages. Igeba's devices are characterized by a strong airflow and high impulse of the aerosol spray, leading to a significant reduction in turbulence. This positively affects the distribution of the preparation. Additionally, the operating principle allows for easy cleaning since EMs tend to adhere. A quick rinse with water is all that is needed.

The application of biostimulants and plant fortifiers through a ULV aerosol generator provides an efficient and time-saving method to enhance plant health and productivity. The use of EM in horticulture is becoming increasingly important to meet ecological standards and boost the economic success of agricultural businesses.