

# Zucchini Yellow Mosaic Virus –Weak Strain (244201) Fact Sheet

## Summary

Zucchini Yellow Mosaic Virus –Weak Strain (ZYMV-WK) is a naturally-occurring plant virus which is applied to small cucurbit plants in a specialized inoculation apparatus, at least 5 days before transplantation to the field. This weak or attenuated strain of ZYMV appears to protect young plants against the virulent strains of Zucchini Yellow Mosaic Virus, by cross-protection mechanisms. The product is intended for application to small plants that have not been exposed to virulent ZYMV, or to aphid vectors of ZYMV.

### I. Description of the Active Ingredient

The proposed active ingredient was first described in 1991. The isolate was derived from 2 other ZYMV isolates from melons in France. The weakened or attenuated strain, ZYMV-WK was reported to be serologically similar, and nearly identical to its originating virulent isolates. Plants inoculated with ZYMV-WK exhibit mild leaf symptoms, ranging from discrete vein-banding to a mild mottle, in contrast to infections by severe (virulent) ZYMV. Flower production, vegetative growth and fruits generally are not affected by ZYMV-WK.

Mechanical inoculation of ZYMV-WK to protect zucchini and other cucurbits from subsequent infection by severe strains of ZYMV has been demonstrated in field trials in several countries, including France, United Kingdom, Israel, Taiwan, and the U.S. (California) with enhanced marketable yields compared to plants not protected with the ZYMV-WK strain.

### II. Use Sites, Target Pests, and Application Methods

The active ingredient, ZYMV-WK is proposed for control of virulent strains of Zucchini Yellow Mosaic Virus on outdoor acreages of transplanted zucchini and other domesticated members of the Cucurbitaceae, including cantaloupes, watermelons, muskmelons, winter and summer squash, and pumpkins.

- **Application methods:** The specialized inoculation equipment, Bio-Oz Inoculation Machinery – BIM uses compressed gas to inoculate plant leaves with ZYMV-WK solutions and (inert) abrasives to facilitate the pesticidal solutions through the outside layer of the plant leaves.

### III. Registrant Information

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**IV. Additional Contact Information**

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