

New Biological Soution against Ralstonia solanacearum

The new biological solution using microbial technology

SEOUL, KOREA, December 7, 2022 /EINPresswire.com/ -- Ralstonia solanacearum is one of the most devastating bacterial pathogen to damage more than 200 crop species especially for the tomato to cause 35%~90% yield loss. It enters plants through the root wounds, root tips, and secondary root emerging parts. Then it goes to deeper area of plant, finally reaching the vascular system. This soil-borne pathogen survives in infected soils for several years without crops. Because there is no effective chemical control solution except soil fumigant, biological method is considered practical.



Global Agro, the biological solution provider & bio-technology company in Korea has recently announced that it developed an effective and practical biological solution to control Ralstonia solanacearum. This biological product based on *Bacillus methylotrophicus* DR-08 is safe to human and environment.

DR-08 produces a natural volatile compound and secondary metabolites having antimicrobial activity. Natural antibiotics, difficidin and oxydifficidin produced DR-08 are very effective on controlling Ralstonia solanacearum in soil. Those antibiotics inhibits the protein synthesis and damages cell membrane of target pathogen.

"The efficacy of this solution was commercially proved through field trials. One field test among many successful trials showed 84.7% control value compared to untreated plot for the tomato" Global Agro Head of Marketing Division Donglion Kim said.

In addition, this patented microbial has a broad spectrum for the disease control. The unique antibiotic mode of action permits it to control *Xanthomonas* pathogen as well as Ralstonia. It means that this solution can be also applicable to *Xanthomonas campestris*, *Xanthomonas arboicola*, *Xanthomonas axonopodis* causing diseases in peppers, peaches and citrus. It is recommended to spray this product by using irrigation system or drenching method with 5~7 day intervals for soil-borne disease such as Ralstonia. Foliar application is also possible for application for *Xanthomonas* diseases.

"Combined rotationally with another microbial product(Brand name : Mesona, *Bacillus mesonae*), the control effect against *Ralstonia* can be maximized. Mesona is a biological solution for soil salinity stress, but it has been found that this microbial is also effective on *Ralstonia*, although not as well as DR-08. Mesona has an interesting function to facilitate the absorption of water or nutrition even under unfavorable soil conditions. *Ralstonia* blocks the vascular tissues of the host and causes wilt symptoms with green leaves. Since *Ralstonia* infected crops suffer wilt, the absorption facilitating function of Mesona can alleviate this symptom" Donglion Kim added.

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