

January 13, 2026

Launch of a novel biological control agent ECOARK® by KUMIAI CHEMICAL

We, Kumiai Chemical Industry Co., Ltd. (Kumiai), will launch ECOARK®*1, a novel biological control agent for crown gall disease, in the domestic market in spring 2026.

ECOARK® is a biological control agent jointly developed by Okayama Prefecture, Kumiai Chemical Industry Co., Ltd., and K-I Chemical Industry Co., Ltd., and contains the non-pathogenic *Rhizobium vitis* ARK-1 strain as its active ingredient.*2 It is highly effective against crown gall disease that occurs on fruit trees such as grapes and apples, as well as roses.



Crown gall disease is a widespread plant disease caused by the soil-borne bacterium *Rhizobium*. It induces formation of tumors called “galls” on the roots, stems and branches of host plants, causing stunted growth and even death, resulting in serious economic damage. Crown gall disease in grapes and roses is a particularly serious problem for growers. Currently, there is no effective method for controlling this disease in Japan, and ECOARK® is expected to be the only control agent that can contribute to reducing and resolving this problem.



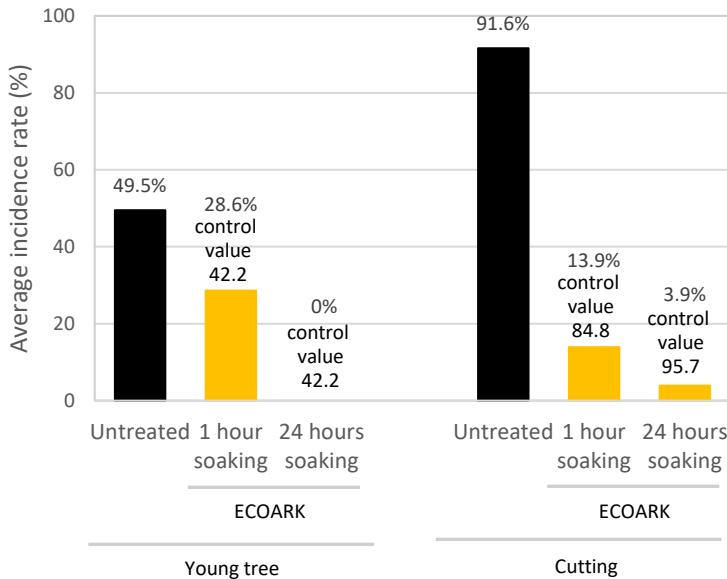
Symptoms of Crown gall disease in grape



Symptoms of Crown gall disease in rose



Tree in a vineyard affected by Crown gall disease



Control value of ECOARK on Grape Crown gall disease (Pot test)

Nagano Fruit Tree Experiment Station (2018)

Variety :	Nagano purple, Kyoho Grape (Seedlings, Cuttings)
Plot size :	7 trees per plot (40L pots) , 2 replications
Application :	[Cuttings]
conditions	May 7, 2018 (24 hours soaking) May 8, 2018 (1 hour soaking) [Seedlings] May 15, 2018 (24 hours soaking) May 16, 2018 (1 hour soaking) Soak the roots or base
Planting :	[Cuttings] May 7, 2018 [Seedlings] May 16, 2018
Severity :	[Cuttings] / Moderately severe, (Untreated) [Seedlings] / Severe (inoculation)
Investigation :	October 15, 2018 Calculate the control value from the incidence rate of infected trees in each plot

ECOARK® uses natural microorganisms as its active ingredient, making it highly safety for agricultural workers and minimizing the impact on non-target organisms and the environment. It a pest control material that is in line with Japan's "MIDORI Strategy for Sustainable Food Systems", contributing to food safety and security.

Kumiai, together with its group company Rikengreen Co., Ltd., will be responsible for selling ECOARK® and will contribute to solving the problem by widely distributing the product to producers suffering from crown gall disease.

As a research and development-oriented company, we will continue to research and develop new active ingredients and contribute to global food production by providing high-quality, safe agrochemicals.

ECOARK®

Non-pathogenic *Rhizobium vitis* wettable powder

Active ingredient : Non-pathogenic *Rhizobium vitis* (strain :ARK-1) 2.5×10^{11} cfu/g

Target diseases and application methods of ECOARK®

Crop	Disease	Dilution Ratio	Volume	Application timing	Number of uses	Application method
Fruit trees (Excluding grapes)	Crown gall	5000 times	-	At transplanting or planting	-	Soak the roots of the seedlings in the diluted solution for 1 to 24 hours.
Grapes				At the time of planting the cuttings		Soak the cuttings in the diluted solution for 1 to 24 hours.
Roses				At transplanting or planting		Soak the roots of the seedlings in the diluted solution for 1 to 24 hours.

*1 ECOARK® is a registered trade mark of Kumiai.

*2 Patent No. 5854517 (JP), 7399409 (JP), 7384347 (JP)

<Inquiry for this press release>
Kumiai Chemical Industry Co., Ltd.

Customer Inquiry Form (<https://www.kumiai-chem.co.jp/english/contact.html>)