

# Details of Technology

Name of Technology	Testing of blueberry virus	Biotechnology
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Key words	virus-free blueberry seedlings	

What kind of technology is this?

## outline

**Virus damage exists in Japanese blueberry farms. The establishment of the characterization and testing method for these viruses can contribute to the production of virus-free blueberry seedlings and to the control of vectors.**

Blueberry production in Japan has increased sharply and the cultivation area in 2005 was increased by 3.5-fold, 700 ha compared with that in 1998. The production has been increased world-widely because of enhanced health consciousness in the EU and US. Accompanying with the increased production, 8 kinds of viruses have given serious damage to blueberry in foreign countries. Therefore, in the EU and US, virus testing in the blueberry seedling production and the control of the vectors of viruses have been already performed. On the other hand, in Japan, virus diseases in blueberry have not been investigated, and virus testing in the seedling production and the control of vectors have not been performed. Thus we have performed the investigation on virus diseases in blueberry and its analysis. Until now, we have found virus, which is originated from abroad and decreases the production, also in Japan and a novel virus not reported in the world. There are still many trees with signs caused probably by virus in the farms and we could establish the testing method for 3 kinds of viruses.

What are its applications?

Since it has been considered in Japan that blueberry is pest resistant, almost no control of pests has been performed. Therefore, in the transfer of virus by insects etc., there is a risk of the decreases in the quality and yields in a large scale of blueberry by easy virus infection to healthy blueberry by the vectors. The present research output can be applied to the production of virus-free blueberry seedlings and to the control of vectors, and significantly contribute to the prevention of virus damage in blueberry.

Related patents	None
Related materials	Isogai M., Ishii K., Umemoto S., Watanabe M., Yoshikawa N. (2009) First report of blueberry red ringspot disease caused by Blueberry red ringspot virus in Japan. Journal of General Plant Pathology 75, 140-143.