Web based IPM system for Japanese pear diseases in Japan I. Farming Diary System for farmers' decision making

Koji SUGAHARA⁽¹⁾, Kei TANAKA⁽¹⁾, Matthew LAURENSON⁽¹⁾, Tohru OHTANI⁽²⁾, Tomonari WATANABE⁽¹⁾, and Seisaku UMEMOTO⁽³⁾

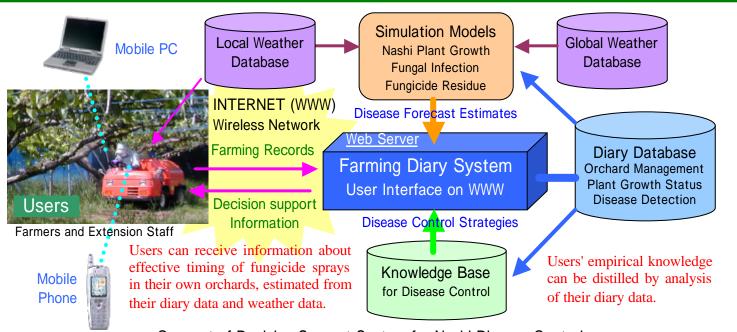


- (1) National Agricultural Research Center, Tsukuba, Ibaraki 305-8666, Japan
- (2) Chiba Prefectural Agriculture Research Center, Chiba 266-0006, Japan
- (3) Chiba Prefectural Agricultural Junior College, Togane, Chiba 283-0001, Japan

INTRODUCTION

Japanese pear (nashi) scab by Venturia nashicola is one of the most serious nashi diseases in Japan. To suppress fungal infections, fungicides are usually applied on a calendar-based spray schedule, more than 10 times during a growing season. Increasing environmental concerns make such frequent spraying unacceptable, and accurate timing of fewer fungicide applications has become more important. However, practical management data from each orchard are required to identify the best strategies to control nashi scab.

We propose a decision support system assisted by the Internet. Farming Diary System is designed to help farmers and extension staff make decisions about more effective timing of fungicide sprays.



Concept of Decision Support System for Nashi Disease Control

FARMING DIARY SYSTEM

Farming Diary System provides a user interface to input and retrieve records of farm management and plant growth status, using Internet-enabled mobile phones or PCs. All diary data are saved to a database server, implemented using Microsoft's Web server and DBMS.

The system will shortly integrate with a knowledge base and simulation models for nashi disease control. Farmers can access it through the wireless network while working in their orchards, and immediately receive information to support their decision making for orchard management such as fungicide sprays.



Display on a mobile phone Inputting a fungicide spray record

Farming Diary System Nashi Knowledge Base Nashi Disease Models

http://riss.narc.affrc.go.jp/diary/ (All in Japanese) http://riss.narc.affrc.go.jp/nashi/disease.htm http://riss.narc.affrc.go.jp/nashi/model.htm

Display on a PC Web browser Management records of a nashi orchard

圃場作業記録 検索

2001 国本区 国月12 国日末で全 国日歌

Fungicide spray records 🖦 🖦

車がし

经条款款款 大谷办人

経済研究性 かじ

経算研修者 大谷から

経由・統領 大谷かん

防算管理 大谷之人

集会/会会 大公元の他

経算研究者 大谷かん

経体的物性 大谷かん

経路・総額 かん Q4/Q4 国境外的作業 集会/会合 不否还の包

(国现代单位的 15年2.7)

調告/実験 かじ

- データを使 「日付」をクリックすると各件業配根が侵物に表示されます。

内容 作業者 衛衛 勢了

1:00 11:00

1046 11:15

09:06 17:00

1148 1140

1001 1146

1528 1400

09:08 17:00

2008 2030

国港會司 1

日村 内菜栽植

07/04 国衛 ナシ

05/24 国際レナシ

MAL 国物 ナシ

3 国制 ナシ

11 国第1 ナジ **四角 国衛** ナシ

(5/11 国明 ナシ

図がは、国際リナシ

04/21 国明 ナシ

14/25 国場(ナシ

04/11 国衛 ナジ

国衛リナシ

K.SUGAHARA E-mail:sugak@naro.affrc.go.jp