



# PENTAKEEP-V



The effect of **PENTAKEEP-V** to fruit trees



 **COSMO SEIWA AGRICULTURE CO., LTD.**

# Grape

**PENTAKEEP-V**

**Crop** : Grape (*Vitis vinifera* L.)“Kyoho“ About 10 years old tree.

**Test place** : Yamanashi, Japan

**Cultivation** : Soil cultivation in simple greenhouse (non-heated);

**Application:** Concentration of PENTAKEEP-V, 0.025 %, spray volume 230 L/10are, 4 times of foliar treatment twice in each two months ( from Mar. to Apr., 2002).; Concentration of PENTAKEEP-V, 0.033 %, spray volume 200 L/10are, foliar treatment 5 times ( from Mar. to Jun., 2003) ;PENTAKEEP-V was mixed in spraying water of agricultural chemicals.

**Harvest** : 3-Jul., 2002 to 10-Jul., 2002  
5-Jul., 2003 to 18-Jul., 2003

**Advantageous effect** :

- Leaves grow vertical direction,mesophyll become thick, green become strong, dried plants weight increased, blast for next season seems massive.
- Fruits become dense color, to have fresh tens surface and to have a good bloom.



Fig.Beginning of bud.



Fig. Effects of PENTAKEEP-V on grapes.



Fig. Effects of PENTAKEEP-V on grape leaves.

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# Grape

**PENTAKEEP-V**

**Crop** : Grape “Rubi“ (*Vitis vinifera* L. cv. Rubi) 6 years old tree  
**Test place** : Pilar do Sul, Sao Paulo, Brazil  
**Cultivation** : soil cultivation; the size of plots 3 m x 6 m (1 plant/plot) and 4 replications.  
**Application:** Concentration of PENTAKEEP-V, 0.05 %, 0.1 %; Spray volume 1000 L/ha; 3 times of foliar treatment once in about 2 weeks (from 21-Jan to 20-Feb, 2004).  
**Harvest** : 1-Apr., 2004

**Table** Effects of PENTAKEEP-V on the yield.

	Bunch weight <sup>a</sup>	Berry weight <sup>b</sup>	Berry count per bunch
	(g)	(g)	(-)
Control (None)	1,072	12.0	89.6
0.05% PENTAKEEP-V	<b>1,263</b>	<b>12.8</b>	<b>98.4</b>
0.1% PENTAKEEP-V	<b>1,311</b>	<b>13.2</b>	<b>99.0</b>

a: Average for 16 bunches.

b: Average for weight of 100 grapes.

**Table** Effects of PENTAKEEP-V on BRIX.

	BRIX <sup>c</sup>
	(-)
Control (None)	15.2
0.05% PENTAKEEP-V	<b>15.8</b>
0.1% PENTAKEEP-V	<b>16.5</b>

c: Average for BRIX of 40 grapes.



Fig. Grape “Rubi“

# Apple

PENTAKEEP-V

**Crop** : Apple (*Malus pumila* Mill.)“Tsugaru“ .  
(Rootstock “M26”), 8 years old tree.

**Test place** : Aomori, Japan

**Cultivation** : Soil cultivation; Clayey black land.;  
Trees are planted in each 4m x 2.5m  
area.; Total plot area is 15are.

**Application:** Concentration of PENTAKEEP-V, 0.01  
%, spray volume 300-350 L/10are.;  
Concentration of PENTAKEEP-V, 0.01  
% within fertilizer, spray volume 1300  
L/10are.; Three times of foliar in this  
term. (Beginning of June, middle of  
June and once in middle July.).

**Harvest** : 10-Sep, 2002

**Advantageous effect** :

- Bigger the fruits, without decreasing relative density.
- 34% of fruits size was “Large”.
- Flavorful fruits, it becomes.; Shelf life was extended.
- Yield was 3.3t/10are in this test, even average around these areas are 2.5t/10are.;



Fig. In terms of harvest.



Fig. Fruits up-growing.

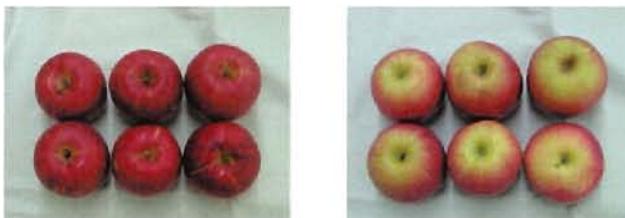


Fig. Color of fruits. Top surface and bottom.



# Cherry

**PENTAKEEP-V**

**Crop** : Cherry (*Cerasus avium* L.) “Sato Nishiki”  
(Rootstock “Aobazakura”),  
About 20 years old tree

**Test place** :Yamagata, Japan

**Cultivation**: Soil cultivation. Clay soil. The size of plots was 10are. Foliages are under simple weather protection roof.

**Application**: Concentration of PENTAKEEP-V, 0.02 %; Spray volume, 400 L/10a; 4 times of foliar treatment almost once in a week (from 4-Jun. to 24-Jun., 2002).

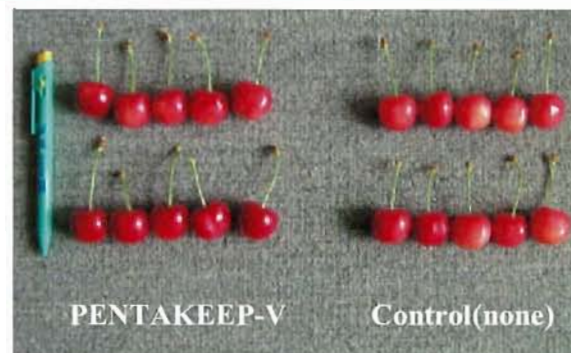
**Harvest** :29-Jun., 2002

**Advantageous effect** :

- The fruits become big, dense,shiny and tasty.
- It doesn't become soft when it fully ripened.;
- Sugar content was high (max 30Brix).;

**Table** Effects of PENTAKEEP-V on cherry

		weight (g)	sugar content (Brix)
PENTAKEEP-V	Upper fruits	8.79	28.2
	Middle fruits	8.18	24.9
Control (None)		7.87	24.1



**Fig.** Effects of PENTAKEEP-V on cherry.



**Fig.** All fruition become large.