



# **International Update Grower Road Meetings July 2012 Shane Max**

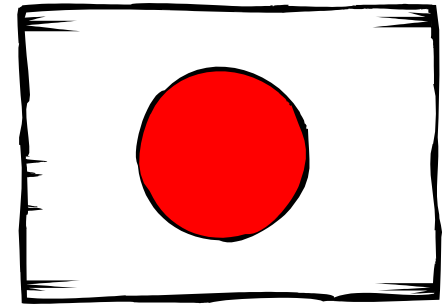
New Zealand



### Topics covered

- Management of Psa in Hayward in Asia
- Situation Update in Europe

# How Hayward survives Psa - Japan

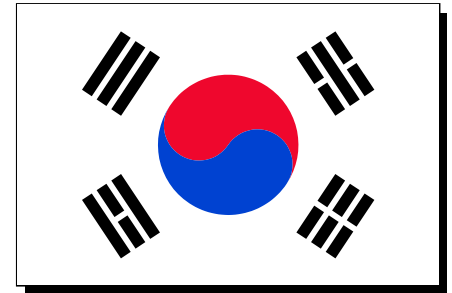


- Relative isolated orchards
- Small orchards- intensively managed - prompt infection removal
- Separate male area
- Winter and Spring coppers
- Antibiotics in late spring if required
- Bacteria bud rot historically controlled with pre flowering trunk girdle



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# How Hayward survives Psa - Korea



- Relatively isolated orchards
- Small orchard intensively managed
- No males
- Some grown under covered structures to prevent cold and monsoon damage that leads to infection
- Copper and antibiotics used
- Decline in Hayward industry in Jeju occurred from declining productivity not vine death per se.

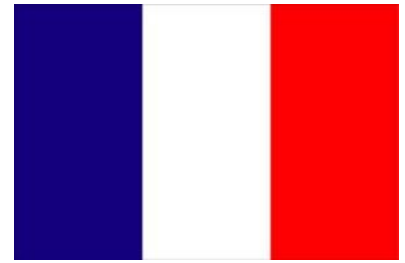








# How Hayward survives Psa - France



- Not sure it is?
- Copper and Serenade Max only products available
- Historically a low/no spray crop so spraying capability very limited.

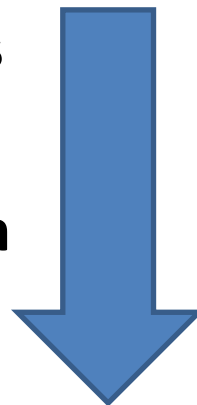


# How Hayward survives Psa - Italy



Not sure it is!

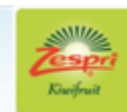
- Symptoms increasing over years
  - Leaf spot
  - Flower and flower bud infection
  - Cane and sub leader death
  - Trunk infection



**General consensus is**

*“Those Hayward growers who are actively managing the disease – winter and spring spraying of coppers and removing infected material are containing the disease”*

*“But less than 10% of growers are doing this “*



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# Production decrease



## Antonio Schivo's Orchard (~4ha)

2008/09	160t	First Psa Spots seen
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2009/10	120t
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2010/11	90t
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2011/12	Est 80-90t
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Significant leaf spot flower drop , trunk  
cankers – 100% of vines now showing  
secondary symptoms






# Is a umbrella system better for Psa?

## Umbrella

- Low input
- Hard to get complete canopy fill
- Loose a one leader only lose 15-20% of canopy
- Difficult to remove all infected material
- Difficult to achieve good spray coverage

## NZ twin leader

- Complete canopy fill
- Loose a leader - 50% 
- Easier to monitor
- Easier to remove infected material
- Better spray coverage (if going to spray)



# New GOLD Development > 80ha Hort16A converted to Hayward winter 2009/10



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# **NewGold Orchard - 2012**

- **Several difference spray control programmes trialled**
- **No obvious difference in control have been seen**
- **Current situation looks sustainable**
  - **Leaf spot and flower infection present**
  - **Worst flower drop associated with worst leaf spot**
  - **Virtually no secondary symptoms seen**
    - **~60 vines removed 2010/11: 60 vines removed 2011/12**











# Hayward Psa Management

