



## Anilinopyrimidines (AP) Working Group

Meeting on December 6, 2011, 8:30 am – 12:00 noon  
Protocol of the discussions and use recommendations of the AP Working Group of the Fungicide Resistance Action Committee (FRAC)

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### Participants

BASF	Randall Gold Gerd Stammler
Bayer CropScience	<u>Helene Lachaise</u> Dominique Steiger Andreas Mehl
KI Chemical	Isao Kaneko Satoshi Usami
Syngenta	Duncan McKenzie Helge Sierotzki

### Venue:

Lindner Hotel & Residence Main Plaza, Frankfurt, Germany

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## 1. Monitoring Results 2011 (FRAC members)

### 1.1 Botrytis results

#### Vineyards

(Bayer CropScience, Syngenta, BASF)

Sensitivity monitoring was carried out in Australia, Austria, Chile, France, Germany and Spain in commercial vineyards. Available data to date (2011), show that the

frequency of resistant isolates continues to remain low in Europe and Australia. First monitoring results in Chile indicate higher resistance frequencies in table grapes. Additional studies are necessary in order to determine if these initial results can be confirmed.

Products, applied according to the FRAC-AP guidelines in grape spray programs, maintained very good performance in the field.

### Strawberries

(Syngenta, BASF, KI Chemical)

Sensitivity monitoring was carried out during 2011 in Austria, Germany, Poland, Belgium, UK Netherlands, Denmark, Slovakia and Spain from commercial locations. Data show that the frequency of resistant isolates is moderate, fluctuating from field to field, ranging from zero to high.

In 2009, monitoring studies carried out in Mie Prefecture in Japan at commercial sites showed overall very low frequency of resistance.

Products, applied according to the FRAC-AP guidelines in strawberry spray programs, provided good control in commercial situations.

### Other crops

(BASF, KI Chemical, Syngenta)

Sensitivity monitoring was carried out during 2011 in Germany and France from bean and lettuce commercial locations. Data show that the frequency of resistant isolates is very low. No resistance was found in monitoring studies carried out during 2009 in Mie Prefecture in Japan in eggplant and tomato from commercial locations.

Evidence from field and laboratory trials has shown that there is a medium resistance risk of *Botrytis* to APs. The fact that resistant isolates can be found in commercial sites, albeit at low levels, reinforces the importance of strict adherence to the FRAC-AP guidelines to control *Botrytis*.

## **1.2. *Venturia* results**

2011 monitoring studies are still in progress. An update will be given in the first quarter 2012.

## **1.3. *Monilinia* spp.**

(Syngenta)

First monitoring studies on *Monilinia* spp. from apricot in Switzerland showed that all isolates were sensitive.

## 2. Use Recommendations

The purpose of the use guidelines for AP containing products is to maintain the sensitivity in the target pathogens and to prevent crop losses due to resistant pathogen populations

### 2.1 General AP's Guidelines (all crops)

Where different AP-containing products are used in one season, the cumulative number of applications with cyprodinil-, pyrimethanil- or mepanipyrim-containing products must not exceed the maxima as mentioned below.

The Botrytis use recommendations were reviewed during the meeting on December 6th, 2011.

The guidelines for the use of AP fungicides against *Botrytis* grey mould were slightly adapted for specific situations where seven or more treatments are applied per crop and season.

The *Venturia* guidelines have not been changed.

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### 2.2 Botrytis Guidelines

- Where two treatments are made per season, the number of applications of AP-containing products is limited to one.
- In situations where up to six Botrytis treatments are made per crop and season, a maximum of two applications with AP-containing products are recommended.
- In specific situations where seven or more Botrytis treatments are required per crop and season, a maximum of three applications with AP-containing products is recommended and not more than two consecutive applications.
- For specific crops and products, follow use recommendations of individual companies.

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### 2.3 Venturia Guidelines

- Apply a maximum of four AP-containing products per season.
- In locations where resistance has been reported, use APs only in mixture with an effective non cross resistant scab fungicide.

- Individual products should always be used at recommended dose rates and during the period when they are most effective.
  - Curative use only in conjunction with reliable scab warning systems.
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### **3. Next Meeting**

The next AP FRAC Working Group meeting is scheduled for December 4<sup>th</sup> 2012.