

Anilinopyrimidines (AP's) Working Group

Meeting on December 02, 2014, 8:30 am - 12:00 am
Protocol of the discussions and use recommendations of the AP's Working Group of the Fungicide Resistance Action Committee (FRAC)

Participants

BASF	Randall Gold Gerd Stammler
Bayer CropScience	<u>Andreas Mehl</u> Charles Bergmann
KI Chemical	Isao Kaneko Takumi Katsumata
Syngenta	Duncan McKenzie Gabriel Scalliet Stefano Torriani Birgit Forster

Venue:

Lindner Main Plaza Hotel, Frankfurt, Germany

ANTI-TRUST GUIDELINES (FROM FRAC CONSTITUTION) WERE SHOWN BEFORE THE MEETING STARTED

1. Monitoring Results 2014 (FRAC members)

1.1 *Botrytis* results

Vineyards

(BASF, Bayer CropScience, K.I. Chemical, Syngenta)

Extensive monitoring studies in Europe and Chile have been carried out for more than a decade by Bayer CropScience, KI Chemical, Syngenta, and BASF. In 2014, sensitivity data from commercial vineyards were presented for Austria, France, Germany, Chile, Croatia, Italy, Hungary, Portugal, Romania, Slovenia, Switzerland and Spain.

Data from these studies show that frequencies of resistant strains vary from low to moderate with high regional variability, particularly in France.

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

Strawberries

(BASF, Syngenta)

Sensitivity monitoring was carried out during 2014 in Germany, Poland, Belgium, Italy, Sweden, Denmark, UK, 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. Compared to 2013, the frequency of resistant isolates in the monitored populations remained stable.

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

Vegetables

(Syngenta)

Sensitivity monitoring in tomato, lettuce, onions, cucumber and peas was carried out during 2014 in Netherlands, France, Poland, Germany, and Spain from commercial locations.

Overall, data show a low frequency of resistant isolates in all studied crops with the exception of tomato.

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

(BASF, Syngenta)

Monitoring studies for 2013 and 2014 were presented.

Samples from Austria, France, Germany, Italy, Netherlands, Poland, Portugal, Bulgaria, Slovakia, Latvia, Lithuania, Spain, Greece, and UK were analyzed.

Based on dose-response to APs using *in vivo* biotests, populations are classified as either sensitive, moderately adapted or resistant.

Overall, in 2013 and 2014 a heterogeneous distribution of resistant populations was detected in most apple growing areas as observed in previous years. Within individual apple growing regions, sensitive sites could be detected next to less sensitive sites.

Frequency of moderately adapted populations have increased gradually during the past years. However, these populations are controlled by recommended label rates.

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 use recommendations were reviewed during the meeting on December 2nd, 2014.

The *Botrytis* and *Venturia* guidelines have not been changed.

2.2 *Botrytis* Guidelines

- Where up to three treatments are made per season, the number of applications of AP-containing products is limited to one.
- In situations where four 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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The next AP FRAC Working Group meeting is scheduled for December, the 1st, 2015.

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