



BLUE MOULD WARNING SERVICE GENERAL REPORT FOR 2003

by François JACOB
Secretary General, CORESTA

Introduction:

The Blue Mould Warning Service of CORESTA has been active since 1963, and is coordinated by the General Secretariat in Paris. It covers the following zones and countries, although a contact has not necessarily been established with every single country listed in the table hereunder.

Zones and countries

North Africa: Algeria, Morocco, Tunisia

Middle-East: Iran, Lebanon, Syria, Turkey

South East Europe: Albania, Bulgaria, Croatia, Cyprus, Greece, Macedonia, Romania, Serbia

South West Europe: France, Italy, Portugal, Spain

Northern & Central Europe: Austria, Belgium, Germany, Hungary, Poland, Slovakia, Switzerland

Thirty-six organisations from twenty-four countries participated in 2003 in the Blue Mould Warning Service (same figures as for 2002).

Fifteen warnings (against seventeen in 2002), signalling 21 areas of infestation in the investigated zone, were despatched by the General Secretariat to the participating Organisations, and also displayed on the CORESTA web-site.

General Outlook

Whereas the summer of 2002 in Europe was generally wet and cold, the summer of 2003 was exceptionally warm and dry. It is therefore not surprising that the extent, intensity and consequences of blue mould were considerably reduced in 2003 compared with 2002.

The existence of metalaxyl-resistant strains was again suspected in Germany, and for the first time in Austria.

The following table gives a summary of the warnings despatched in 2003.

Blue Mould Warning Service - Warnings despatched in 2003

Warning N°	Date of Outbreak	Seedbed (S) Field (F)	Country/Region	Observations
1	8 April	S	Tunisia Northern Tunisia	Dark variety 8-4/7-2. Light outbreak treated with Ridomil MZ 58
2	9 April	S	Morocco Ain Dorrij	Dark tobacco B 47 – stage 5-6 leaves – Traces of blue mould
3	5 & 24 April	S	Iran	Var. Bergerac C, Burley 21 and basma 178-2. Medium to high sporulation, treated with Ridomil MZ 72 and mancozeb
4	2 May	S	Bulgaria Plovdiv	Virginia seedlings stage 4-6 leaves. Medium to high sporulation. Treated with Ridomil Gold 68 WP.
	2 June	F	Germany Freiburg	Outbreak on a Burley field. Sporulation on several plants 3 weeks after transplantation. Affected plants destroyed and plots treated with Acrobat Plus WG
5	6 June	F	Germany North Baden	Outbreaks on fields. Affected plants destroyed and plots treated with Acrobat Plus WG
	2 June	F	Tunisia Northern Tunisia	Light outbreak in the field on dark variety 8-4/7-2. Climatic conditions conducive to blue mould. Treatment with Ridomil MZ 58
6	19 June	F	Germany Lower Saxony	Outbreaks on fields. Seedlings supplied from southwestern Germany where blue mould occurred on 2 June. Analysis by University of Hohenheim shows resistance to metalaxyl, but original contamination source unclear.
	23 June	F	Germany Rheinland Pfalz	Outbreaks in the field. Affected plants destroyed and tobacco treated with dimetomorph.
	9 June	F	Iran Northern Iran	Outbreak on the field with medium sporulation.
7	27 June	F	Germany Bavaria	Small sporadic outbreaks, treated with dimetomorph.
	27 June	F	Austria Eastern Styria	Outbreak on 0,5 ha of Burley. Area affected treated with Ridomil Gold MZ WG (0,25%)
8	8 July	F	Germany South-West & West	Several small outbreaks in the field; treated with dimetomorph.
9	14 July	F	Poland South	Variety Wislica (FCV) stage 12 leaves, plot of 1,2 ha, 2-3% plants infected. Bottom leaves removed. Treatment with Ridomil Gold 68 WP.

Blue Mould Warning Service - Warnings despatched in 2003 (Continued)

Warning N°	Date of Outbreak	Seedbed (S) Field (F)	Country/Region	Observations
10	18 July	F	France North	Outbreak on 200 plants at growing stage. Not systemic. Plants destroyed and plot treated with Acrobat.
11	23 July	F	Portugal	Light outbreak on variety As/04 DF in field of 12 ha at early flowering stage. Treated with Ridomil MZ 72.
12	22 July	F	Switzerland Thurgau	Outbreak on Virginia var Golta. Affected plants destroyed and plot treated with Ridomil Gold
	29 July	F	France Dordogne	Outbreak on 0,10 ha of Burley BB16A after topping, with some sporulation on lower leaves. Treatment with Maneb and Acylon TC.
13	30 July	F	Austria Upper Austria	Outbreak on 1,4 ha of Burley at early flowering stage. Field treated with Ridomil Gold MZ WP two weeks before outbreak. Affected plants destroyed and field treated with Ortiva (Azoxystrobin) and Dithane Neo Tec (Mancozeb)
14	12 August	F	France Drôme (South East)	Outbreak on 0,10 ha Virginia ITB 33024 after topping. Some sporulation on lower leaves. Field previously treated after transplanting and before topping.
15	14 August	F	Poland Southern Poland	Outbreak on 0,8 ha of FCV DH 17, fully developed, with 40% plants infected and loss of 200 kgs.
				Other outbreak of dark var. Makar, 0,7 ha, with few plants affected and insignificant loss.

SITUATION PER GEOGRAPHICAL ZONE

NORTH AFRICA

Morocco

A few outbreaks were recorded on seedbeds early April in several growing areas. Weather then was humid and cool. Seedbed loss was negligible.

Preventative measures were implemented under the supervision of the Régie des Tabacs.

Chemicals used for blue mould control were contact fungicides (Maneb, Mancozeb), and systemic fungicides (Cymoxanil, Metalaxyl, Oxadixyl).

MIDDLE-EAST

Iran

A few outbreaks on seedbeds were observed from mid-March to mid-April, with chlorotic spots. In the field a few outbreaks were observed early June on Burley tobaccos, in the Mazandaran, Amreh and Chahar Dangeh areas. In 2003 the total area planted with tobacco was 13730 ha, including 4200 ha for oriental, 4200 ha for Flue-Cured, 2600 ha for Burley, 2260 ha for Tombacs and 470 ha for others.

SOUTH EAST EUROPE

Bulgaria

In 2003 Bulgaria grew approx. 35,000 ha of tobacco, including Virginia, Burley, Oriental and semi-oriental varieties.

Blue mould outbreaks occurred on Virginia seedbeds in May in the Plovdiv area. By the end of June the disease affected 4-5% of total planted areas.

Systemic-contact fungicide treatments with metalaxyl-based formulations (Ridomil Gold) and aluminum phosetil (Aliette) were applied successfully.

No metalaxyl-resistant strain was observed.

Cyprus

No occurrence of blue mould was observed on seedbeds or fields.

Romania

In 2003, Romania grew 5.860 ha of tobacco, including 2319 ha of Virginia flue-cured, 878 ha of Burley, 781 ha of Oriental and 1882 ha of other tobaccos

Due to the climatic conditions (very dry and warm weather in spring and summer) no outbreaks of blue mould were observed.

Preventative treatments are applied on the seedlings. Moreover, most Romanian cultivars are tolerant to blue mould, in the seedbed and in the field. Fungicides used in the seedbed are Captan and Metalaxyl.

SOUTH WESTERN EUROPE

France

In 2003 France grew 8627 ha of tobacco, including 4150 ha of Virginia, 3379 ha of Burley and 1098 ha of dark air-cured. Blue mould affected a negligible proportion of the areas planted in all types of tobacco.

Due to a very warm and dry summer, only three outbreaks, with no economic consequences, were recorded. They occurred in three different parts of France (North, South-west, South-east)

Preventive treatments with fungicides are applied on seedbeds and fields. Resistant varieties are preferred whenever possible, and Bion MX (acibenzolar-S-methyl + mefenoxam) is used for curative treatments.

Only 200 tobacco plants were destroyed due to blue mould.

No metalaxyl-resistant strain has been found in France up to now.

Italy

Due to exceptionally warm and dry conditions, no outbreak of blue mould was recorded in 2003.

Preventative treatments were made using Ridomil Gold and, for the first time, Bion MX.

Spain

Spain grows 15000 ha of tobacco, including 12000 ha of Virginia and 3000 ha of Burley (types E and F).

Early July in the region of Caceres, blue mould affected an area of 150 ha of Virginia, with a loss of 10 tons. High humidity and mild temperatures during the night are thought to be at the origin of this outbreak. The area was treated with metalaxyl+mancozeb.

Metalaxyl and benalxyl are used alternately for preventative treatments on seedbeds and fields.

No resistance to metalaxyl was reported.

CENTRAL AND NORTHERN EUROPE

Austria

Austria grows 115 ha of tobacco, (89% Burley, 10% dark air-cured, 1% Virginia).

Two blue mould outbreaks were reported, one at the end of June in Styria, (3,4 ha affected, loss 1200 kg) and the other at the end of July in Upper Austria (1,4 ha affected, loss 300 kg).

Experts from the Growers Association and from plant protection companies found strains with at least partial resistance to metalaxyl.

The Growers Association maintains a control on seedbeds, planting materials and fields. Resistant cultivars are used whenever available. A warning service informs growers of blue mould appearance in Austria (www.bfl.at).

Three recommendations for spraying the field were made on 27 June, 7 July and 31 July.

Products recommended are:

Ridomil Gold MZ WG [Metalaxyl M (40 g a.i.), Mancozeb (640 g a.i.) – 0,25%]

Ortiva [Azoxystrobin (250 g a.i.) – 0,1%]

Dithane Neo Tec [Mancozeb (750 g a.i.) – 0,05%]

Germany

Germany grows approx. 4700 ha of tobacco, including 2490 ha of FCV, 960 ha of Burley and 1250 ha of dark air-cured. The largest part of the crop is grown in the three southern/southwestern states of Baden-Württemberg, Rhein-Pfalz and Bayern.

In 2003, only 25 ha of tobacco (23 ha Virginia, 2 ha Burley) were affected by blue mould, with a loss of a few tons of Virginia.

The few outbreaks were recorded early June in Baden-Württemberg, then in Rheinland-Pfalz and Bavaria.

Treatments on seedbeds: 2-3 applications of Dimetomorph, Ridomil TK, Acrobat Plus
Field treatments are made with Dimetomorph, Acrobat Plus and Ridomil TK.
In case of an outbreak, the affected plants are harvested and destroyed.
Signs of resistance to metalaxyl were once again observed by German laboratories.

Hungary

No outbreak of blue mould was reported in Hungary in 2003.

Growers are advised to take preventive measures.

Chemicals used are:

Ridomil Gold 68WP (metalaxyl + mancozeb)

Galben M (benalaxyl + mancozeb)

Dithane M45 (mancozeb)

Alliette 80WP (Fosetil-Al)

Amistar (Azoxystrobin)

Poland

Poland grows approx 15010 ha of tobacco, including 9630 ha of FCV, 4640 ha of Burley and 740 ha of dark air-cured.

Three outbreaks were recorded in 2003, one mid-July, and two mid-August in the south-east part of Poland. Tobacco surfaces affected were 2 ha of FCV and 1 ha of dark air-cured, with a loss limited to 300 kg.

After receiving the first warning from Germany, farmers were advised to use Ridomil Gold MZ 68 WP (metalaxyl-M + mancozeb) or Acrobat MZ 69 WP (dimetomorph + mancozeb) as preventive sprays.

Control means used include fungicides (Ridomil Gold MZ 68 WP, Ridomil MZ 72 WP, Acrobat MZ 69 WP) and use of resistant varieties Bursan (Burley).

No metalaxyl resistant strains were observed.

Switzerland

In 2003, Switzerland grew 680 ha of tobacco, including 81% of Burley and 19% of Virginia.

A single outbreak was observed on 22 July in Turgau on Virginia tobacco. Affected plants were destroyed and the plot treated with Ridomil Gold

Growers must strictly abide by preventive dispositions and declare any outbreak of blue mould. Seedbeds are treated with Zineb twice a week. Systemic fungicides are forbidden on seedbeds. Fields are treated every other week with Maneb. No treatment is allowed less than one week before harvest.

When an outbreak is discovered, it must be declared to the cantonal phytosanitary service. Infected plots are destroyed and neighbouring zones treated with systemic fungicides (phenylamids, Mancozeb).

Sanitation precautions include destroying seedbeds after transplanting, early harvesting of lower leaves, and burrowing of plants after harvest.

No metalaxyl resistant strains were observed.