



BLUE MOULD WARNING SERVICE GENERAL REPORT FOR 2002

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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 2002 in the Blue Mould Warning Service (same figures as for 2001).

Seventeen warnings (against eighteen in 2001), signalling 25 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

Climatic conditions in Europe were unusual in 2002, with a very wet summer in central and western Europe. Germany suffered heavy losses, and studies are being made on whether some of the strains found are resistant to metalaxyl. The eastern part of France (Alsace) also suffered losses well above those of previous years.

The rest of the area covered did not suffer significant losses.

The following table gives a summary of the warnings despatched in 2002.

There may be legitimate concern for future years, and more than ever preventative measures must be applied with care throughout the Euro-mediterranean area.

Blue Mould Warning Service - Warnings despatched in 2002

Warning N°	Date of Outbreak	Seedbed (S) Field (F)	Country/Region	Observations
1	4 April	S	Iran Mazandaran Northern Iran	Var. Basma 178-2 - High sporulation, treated with Ridomil MZ
2	25 March	S	Morocco Ouezzane	Dark tobacco B 47 – stage 4-5 leaves
3	11 April	S	Iran Golestan Northern Iran	Var. Coker 347 - High sporulation, treated with Ridomil MZ
4	18 May	F	Tunisia Northern provinces	Light localised outbreaks on early planted dark air-cured tobacco, 5-6 leaves stage. Treated w/ Ridomil MZ58.
5	14 May	S	Morocco Marrakech	Dark tobacco B 47 – stage 5-6 leaves
6	May-June	F	Germany Forchheim	Outbreaks on fields at Forchheim and subsequently at growers sites. Infected plants destroyed and fields treated w/ Ridomil TK. Seedlings suspected although no symptoms at transplanting.
7	18 June	F	Poland Lezajsk (South)	Variety Wislica FCV. 1-2 leaves affected by plant, with avg 8 lesions per leaf. Treated with Ridomil Gold after infection.
8	9 June	F	Poland Kazimierza Wielka	Variety Milenium (dark). 1-2 leaves affected by plant, with 4-5 lesions per leaf. Treated with Ridomil Gold after infection.
9	2-6 May	F	Morocco Fes - El Hajeb	Traces of blue mould on Burley B23 and FCV SG28
10	2 July	F	France Alsace	Spots and some sporulation at growing stage. Area affected 0.30 ha.
11	8 July	F	Poland Lublin	Var. Wislica FCV. Stage 10 leaves. 1-4 leaves affected/plant. 4 lesions/leaf. Removal of infected bottom leaves. 1 ha affected, loss estimated 300 kg. Preventive treatment Ridomil Gold on 2 July.
12	17 July	F	Germany Rhine valley Austria Styria	Severe outbreaks in the field. Metalaxyl treatments apparently ineffective , infection controlled only after subsequent use of dimetomorph. Burley 12-14 leaves. Plot 0.5 ha, 10% infected, with 2-4 leaves infected/plant and 2-3 lesions/leaf. Preventative treatment w/ Ridomil MZ 72 WP on 27 June and again after infection.

Blue Mould Warning Service - Warnings despatched in 2002 (Continued)

Warning N°	Date of Outbreak	Seedbed (S) Field (F)	Country/Region	Observations
13	19 July	F	France Alsace	Numerous outbreaks in the region, several plots were destroyed. Climatic conditions were conducive to blue mould.
14	mid July	F	Germany Rhine Valley Bavaria	Several outbreaks treated with metalaxyl and dimetomorph. Several plots destroyed.
	24 July	F	Italy Umbria	Outbreaks on FCV ITB 609, K394 and K326 Treatment with Ridomil Gold controlled the disease.
15	7 August	F	France South-west	Systemic outbreak on lower leaves of Burley ITB501. Three treatments with Acylon carried out before outbreak.
			Loire valley	Outbreak on lower leaves of Burley ITB501. Two treatments with Acylon carried out before outbreak. Affected plot destroyed (0.15 ha).
16	8-19 August	F	France South-west (four sites)	Non-systemic blue mould outbreak with sporulation on burley variety ITB 501 at flowering stage, on leaf levels X, C and B. 0,99 ha plot completely infected.
				Blue mould outbreak with much sporulation on burley variety TN 90 at topping stage. All leaf levels affected. Plot destroyed.
				Non-systemic outbreak of blue mould, with little sporulation, on burley variety ITB 221. Budding stage. Only a small section of the plot was affected.
				Blue mould outbreak with high sporulation on all leaf levels of burley variety BB16A, after topping. Infected section of plot destroyed (0.20 ha).
17	20 August	F	France South-west	Outbreak on Burley BB16A

SITUATION PER GEOGRAPHICAL ZONE

NORTH AFRICA

Morocco

A few outbreaks were recorded on seedbeds, the first on 25 March at Ouezzane and the latest on 14 May at Haouz (Marrakech). Seedbed loss was negligible, less than 1% of the total surface. Climatic conditions were not conducive to blue mould in 2002, and preventive measures had been taken under the supervision of the Régie des Tabacs.

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

Tunisia

The planted surface areas are 2590 ha of a local dark smoking variety (BC 8/4-7/2), with an additional 230 ha of Burley, 7 ha of Virginia and 37 ha of Oriental. Moreover, 73 ha of *N. Rustica* are grown for snuff. This amounts to a total of 2940 ha of tobacco.

The first outbreak of the season occurred on 18 May, in the northern part of the country, on seedbeds of dark air-cured tobacco, stage 5-6 leaves. In total, blue mould affected less than 1% of the BC 8/4-7/2 planted areas, with no significant loss.

Preventive treatments with Ridomil MZ 58 are applied from the stage 4 leaves, with one application every 10 days at the dose of 1.5-2 g/l.

No metalaxyl-resistant strains were identified.

MIDDLE-EAST

Syria

Figures for 2001, not updated: Syria grows approx. 17165 ha of tobacco, including 3221 ha of Burley, 1595 ha of Virginia, 5743 ha of Oriental, 4421 ha of Balady and 2185 ha of Tombac and other types.

Three series of outbreaks occurred from 18 April to 7 May 2002 in the Saraden and Baniyas areas, affecting a total of 42 fields and 17 ha. The type of tobacco concerned was Balady, the percentage of infestation ranged from 3 to 19%, and systemic infection was observed. Infected transplants were pulled up and buried outside the fields, and applications of Ridomil Gold or Sandovan were made.

No metalaxyl-resistant strains were identified.

Turkey

Turkey grows 198,598 ha of tobacco, 98.6% of which are Oriental varieties. Only 2824 ha of flue-cured are grown.

A very small occurrence of blue mould was reported on seedbeds in April, in the area of Adapazari-Ormanköy, and was controlled by use of Ridomil MZ 72 WP, Antracol 70 WP and Dithane M 22.

SOUTH EAST EUROPE

Bulgaria

In 2002 Bulgaria grew approx. 30,000 ha of tobacco, including Virginia, Burley, Oriental and semi-oriental varieties.

The weather conditions were conducive to blue mould, but the first outbreak occurred late in the season, on 12 August, on Burley and Virginia fields, in the form of local spots with high sporulation, at flowering stage. Area affected was 5 ha. Other areas in the southern part of the country were affected late August. Total area affected was approx. 1% of the total.

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

No metalaxyl-resistant strain was observed. No outbreak was observed on the trap collection.

Cyprus

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

SOUTH WESTERN EUROPE

France

France grows 8716 ha of tobacco, including 4026 ha of Virginia, 3269 ha of Burley and 1321 ha of dark air-cured. Blue mould affected 11%, 2% and 1.5% respectively of the areas planted in those three types of tobacco, with estimated losses of 100, 20 and 1 tons respectively.

The first outbreak was recorded early July in the Alsace (east) and developed to an extent unknown in previous years. Other outbreaks of much lesser significance were recorded in the south-west, and a few isolated outbreaks and in the west and south-east.

Preventive treatments with fungicides are applied on seedbeds and fields. Resistant varieties are preferred whenever possible, and Ayclon Tabac (metalaxyl) is used for curative treatments.

A total of 50 hectares of tobacco were destroyed due to blue mould.

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

Italy

Italy grows approx 46100 ha of tobacco of various types. Flue-cured represents 19000 ha, Burley (and a small production of Maryland) 11500 ha, Fire-cured 3000 ha, Sun-cured (Oriental) 4600 ha and dark air-cured 8000 ha. (*Figures for the 1998 crop*)

A rather severe outbreak on seedbeds occurred on 15 April in Scafati (Campania), with high sporulation. 30% of the plants were affected. Later in the season, which was unusually wet, outbreaks occurred late July in Umbria (Central Italy) and Campania. Loss was very limited in the northern part of the country, and estimated at 15 kg/ha in Campania.

Four to five preventive applications of fungicides were practiced on the fields. Chemicals used are Ridomil Gold, Metalaxyl M alone or mixed with Mancozeb, Fosetyl al+mancozeb+cymoxanil, and oxadixyl+mancozeb.

No resistance to metalaxyl was reported.

Portugal

Portugal grows 1715 ha of Virginia and 153 ha of Burley, all on a contract basis.

A severe outbreak occurred on 10 June in central Portugal on FCV McNair at the flowering stage, with high sporulation. Three ha were affected and treated with Ridomil MZ 72. Loss was insignificant.

Preventative dispositions include treatments with mancozeb and mancozeb+metalaxyl.

No metalaxyl-resistant strains were found.

CENTRAL AND NORTHERN EUROPE

Austria

Austria grows 115 ha of tobacco, (90% Burley, 10% dark air-cured).

Two blue mould outbreaks were reported, one mid-July and the other at the end of August, in the very eastern part of the country, with a low to medium infestation. The total area concerned is less than 1 ha, and the loss close to one ton.

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).

Preventive applications of Ridomil MZ 72 WP (0.25%) are made, the same chemical being used as a curative treatment.

No resistance to metalaxyl was reported.

Germany

Germany grows 4880 ha of tobacco, including 2537 ha of FCV, 923 ha of Burley and 1420 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.

Blue mould was a very serious problem in Germany in 2002, with severe outbreaks on the field starting mid-July. The three main growing states were the most affected, with a loss of 20% of the crop in Baden-Württemberg, 10% in Rheinland-Pfalz and 6% in Bayern. The loss in weight is approx. 800 tons. The other tobacco-growing states were hardly affected.

Moreover, following ineffective applications of metalaxyl, studies are being made on the existence of metalaxyl-resistant strains, but no clear conclusion has been drawn yet. Dimetomorph was used successfully in places where metalaxyl had been found inefficient.

Hungary

No outbreak of blue mould was reported in Hungary in 2002.

Growers are advised to take preventive measures.

Chemicals used are Ridomil Gold 68WP, Galben M, Dithane M45, and Alliette 80WP.

Poland

Poland grows 12440 ha of tobacco, including 7180 ha of Burley, 4780 ha of FCV and 480 ha of dark air-cured.

Three outbreaks were reported during the month of July 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 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

Switzerland grows 648 ha of tobacco, including 85% of Burley and 15% of Virginia.

In 2002, the first outbreak was observed on 9 August. Surfaces of 10-20 ha (Burley and Virginia) were affected by blue mould, in the Broye plain (Vaud and Fribourg cantons) and Jura canton, but losses were very low (less than 5 tons).

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.