



Attention: Head of Biology

# Fearsome fungi

## Aim of the competition

To develop an appreciation among secondary school students of the range of problems caused by fungi in the past and in the present day.

Fungi range from the familiar mushrooms and toadstools to microscopic moulds and yeasts; their study is known as mycology. Many fungi have hugely beneficial effects, for example in the production of medicines and food, but the purpose of this competition is to focus on fungi that cause or have caused harm. Here are some such common problem areas with specific examples of the materials or processes involved:

- Diseases of trees, e.g. ash, elm, oak, horse chestnut;
- Diseases of other plants, e.g. potato\*, cereals and grasses, coffee, ornamental plants;
- Diseases of insects, e.g. honey bee;
- Diseases of humans and of other animals such as farm livestock, pets, fish, amphibians, e.g. skin, nails, lungs, central nervous system, ergotism;
- Food poisoning, e.g. aflatoxins and other mycotoxins, poisonous mushrooms;
- Food spoilage, e.g. fruit, vegetables;
- Deterioration of buildings, e.g. dry rot;
- Military activities, e.g. trench foot in the First World War (also at music festivals!), contamination of fuel tanks.

\*The Irish Potato Famine may be included for the purposes of this competition although the microbe involved is now not classified as a fungus.

## Object of the competition

Produce a poster to inform your classmates of the involvement of **one fungus** of your choice in a specific event which either was of historic importance or has been newsworthy in more recent times including the present day. The

examples listed here may be used to guide you in choosing a specific event but you are also encouraged to research more widely.

The poster must be submitted on **one side only of one A3 sheet** (or two A4 sheets attached side-by-side) as hard copy and may be prepared by either hand or computer. The content of the poster must include the Latin name of your chosen fungus, e.g. *Amanita phalloides*, and a description of the problem caused and its consequences, e.g. economic, political, social. Refer also to the circumstances which led to the problem, the properties and features of the fungus which enable it to cause the effects you describe, and (where relevant) ways of solving or containing the problem.

## What makes a good poster?

An eye-catching design, simple layout and strong images attract attention. Give the poster a title which might be in the form of a headline in a newspaper or magazine article. Posters rely on their immediate visual impact; use a small amount of text, short and clear sentences and words that your classmates will understand. Use font sizes that can be read at a distance of 2-3 metres and don't use lots of different colours. Include diagrams, photographs (including your own where possible) and tables of data. Plagiarism will be penalised; therefore use your own words.

## Prizes

**School:** 1st £250 2nd £125 3rd £70

**Student:** 1st £50 2nd £30 3rd £20

A certificate will be awarded to each student submitting an entry of scientific merit. Each school will also receive some microbiological teaching materials.

The results will be published on [www.misac.org.uk](http://www.misac.org.uk) where winning entries and a report of the 2013 competition can be viewed.



Photo credits: British Mycological Society and Dreamstime.com



# 2014 Competition for KS3 and KS4 (S1/2 and S3/4 in Scotland)



Sponsored by the British Mycological Society

## Fearsome fungi

### Aim

To develop an appreciation among secondary school students of the range of problems caused by fungi in the past and in the present day.

### Rules

- Judging will be based on two entry groups: Key Stage 3 (S1/2) and Key Stage 4 (S3/4).
- Each entry must be submitted on paper, on **one A3 sheet** (or two A4 sheets attached side-by-side) using one side of the paper only, and may be produced either by hand or by computer.
- Entries may be created either by individuals or groups of no more than 4 students.
- A maximum of 10 entries per school in each entry group is permitted.

- Account will be taken of originality, presentation and effectiveness in communicating with the intended audience.
- Only entries that conform to the competition rules and show scientific merit will be considered; note the requirements and consider the suggestions given on the front page.
- Evidence of plagiarism, such as downloading text directly from web sites without modification and interpretation, will result in disqualification. (Recommend only reputable sites for research; see [www.open.ac.uk/webguide](http://www.open.ac.uk/webguide) for tips on using the internet.)
- Each entry must be clearly labelled on the back with the name and address of the school, the teacher's name, the full name of each contributing student and the entry group, i.e. Key Stage 3 or S1/2 and Key Stage 4 or S3/4.
- Entries cannot be returned and may be used for promotional purposes by MiSAC and the competition sponsor.

**Closing date for entries: 28 February 2014**

### Entry form

Name of teacher: .....

Tel no: .....

Email: .....

#### KS3, S1/2 entry group

Name(s) of pupil(s)

1 .....

2 .....

3 .....

4 .....

5 .....

6 .....

7 .....

8 .....

9 .....

10 .....

Name and address of school: .....

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.....

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#### KS4, S3/4 entry group

Name(s) of pupil(s)

1 .....

2 .....

3 .....

4 .....

5 .....

6 .....

7 .....

8 .....

9 .....

10 .....

### How did you learn of the competition? Please tick

MiSAC web site  BMS web site  Mailing: personal/to school  ASE Conference  Other .....

**Don't forget to keep a copy of the rules and entry form!**

Address for entries:

**MiSAC Competition, c/o NCBE, University of Reading, 2 Earley Gate, Whiteknights Road, Reading RG6 6AU**