

March 21, 2003

Sir John Krebs  
Chairman  
Food Standards Agency  
Aviation House  
125 Kingsway  
London WC2B 6NH  
United Kingdom

Dear Mr. Chairman:

Though you have advised me that the Food Standards Agency (FSA) is unconcerned about the widespread and severe adverse reactions caused by the mycoprotein ingredient used in Marlow Foods' Quorn-brand foods, we offer you new information that provides further evidence that the risks to the public are greater than the FSA has acknowledged.

1. The FSA and Marlow Foods acknowledge that mycoprotein causes adverse reactions in some consumers, but contend publicly that the number of people affected is vanishingly small, especially compared to rates of allergic reactions to the major food allergens. The FSA and Marlow Foods have stated that only about one out of 146,000 Britons is affected. The basis for that calculation, as we have advised you previously, is fatally flawed. For starters, the company's 1977 double-blind food challenge found that about 5% more people who ate mycoprotein suffered gastrointestinal symptoms compared to a control group that did not eat mycoprotein. Also, CSPI has received more than 450 adverse reaction reports from the United Kingdom. Assuming that half of the 60 million people in the United Kingdom have eaten Quorn, CSPI on its own received reports from about one out of 67,000 people, and we certainly have heard from only a small fraction of people affected. Third, while Marlow Foods acknowledges receiving about 100 adverse-reaction reports per year, only 8% of people who contacted CSPI had previously complained to Marlow Foods. Thus, at a minimum, twelve times as many people experienced adverse reactions as have contacted the company. Fourth, CSPI recently commissioned a random telephone survey of 1,000 Britons over the age of 16. (Enclosure 1) One question asked respondents if they were allergic to any of several foods. The responses were:

shellfish	3%
milk	2%
peanuts	2%

wheat	2%
gluten <sup>2</sup>	1%
nuts (not peanuts)	1%
fish	1%
eggs	1%
soya	0.5%
other	3%

Those rates of allergic reaction are consistent with generally accepted estimates. We then asked the approximately 400 people who had eaten Quorn if they experienced certain problems after eating Quorn. Almost 5% of those respondents said they experienced one or more of these problems:

stomach ache or cramps	3% (12 individuals)
diarrhea	1% (4 individuals)
vomiting	1% (3 individuals)
indigestion	<1% (2 individuals)
nausea	<1% (1 individual)
hives or rash	<1% (1 individual)
other	1% (headache, flatulence; 2 individuals)
had no problems	95% (376 individuals)

Thus, based on a modest-sized clinical study and survey research, the rate of reactions to Quorn may be even greater than—not much lower than (as Marlow Foods has contended)—rates due to any of the major allergens. Furthermore, the adverse-reaction reports that CSPI has provided the FSA demonstrate that Quorn has caused such severe hives, anaphylaxis, and gastrointestinal symptoms that consumers have had to seek medical treatment. The high rate of reactions, and the occurrence of life-threatening reactions, makes it incumbent upon the FSA to take action—such as withdrawing approval of mycoprotein or issuing a public warning—to protect consumers.

2. Some might defend Quorn by saying that people who suffer reactions could simply avoid it in the future by reading labels carefully and not eating those foods. Setting aside the ethical issue of whether a government agency should knowingly permit the introduction of a new allergen into the food supply, CSPI has previously advised the FSA that many of people who contacted us said that they had been trying to avoid Quorn/mycoprotein, but they unwittingly ate it at friends' homes, food-service establishments, and other venues where no labeling is provided. Now, to make the sensitive consumer's task even harder, Marlow Foods has begun marketing its mycoprotein ingredient as "Mycoscent" "natural flavoring." It is intended to be used as a salt substitute in dozens of types of products. (Enclosure 2) Existing law permits the ingredient to

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<sup>2</sup> We recognize that gluten sensitivity does not represent a true allergy.

be used without any labeling other than “natural flavoring.” Mycoprotein has the potential to be used in such a wide range of foods that more consumers are likely to be sensitized and to have adverse reactions. Of course, even with labeling, many consumers would not expect to find processed, allergenic fungus in everything from coffee to jams to biscuits. It is intolerable to allow such an ingredient into the food supply.

Once again, we urge the FSA to take action to protect consumers from this dangerous new food ingredient.

Sincerely,

Michael F. Jacobson, Ph.D.  
Executive Director