supplies arriving from other donors.

The contribution is Canada's fourth for famine-stricken Ethiopia; a shipment of 4,000 tons of Canadian wheat, purchased under a grant of $1.5 million, arrived in Ethiopia last May. Other assistance under this grant included the provision of $140,000 for trucks. Earlier, Canada had provided a donation of $50,000 to the League of Red Cross Societies for its drought-relief programs, and more recently Canada contributed $58,750 to the International Red Cross for similar programs in Ethiopia and the six famine-stricken Sahelian countries in West Africa.

The first shipment of Canadian wheat has been delivered to drought areas, and three-quarters of it has been distributed to famine victims.

Last autumn Ethiopian and United Nations officials estimated that two million people in the provinces of Tigre and Wallo were affected by the drought. Assistance was estimated at 214,000 metric tons of grain, with Ethiopia to provide 50,000 metric tons and the remaining 164,000 to come from donor agencies. To date, only 122,000 metric tons have been pledged by donors.

The drought has now spread to the southern part of the country, affecting three-quarters of a million people. Although food requirements for people in these areas have not yet been established, it is estimated that another 85,000 tons of grain will be needed.

The effects of the drought are not expected to diminish until late this year or early 1975.

## Air conditioners possible source of pollution

Air conditioners can be a significant source of air pollution, concludes a University of Toronto health scientist. Whether or not the pollution, in the form of finely divided compounds of aluminum, constitutes a health hazard is a matter that will now be investigated.

The finding is reported in the current number of *Environmental Science and Technology,* a publication of the American Chemical Society, in a paper entitled "Air Pollution by Aluminum Compounds Resulting from Corrosion of Air Conditioners". The authors are Dr. Dmytro Buchnea, an assistant professor at Toronto University's Banting and Best Department of Medical Research, and his son, Alexander Buchnea, a graduate student in the Department of Physics, now with Ecolex Limited of Toronto.

In various laboratories and in a hospital they discovered that, during summer days when air conditioners were at peak operation, there was a dust concentration of various aluminum salts several times higher than that regarded as acceptable by Ontario Air Pollution Standards. The dust was shown to be similar in content to eroded aluminum components of air conditioners in the rooms. In one office, for example, the dust concentration was found to be 364 micrograms *per* cubic metre of air. Provincial standards specify 65 micrograms as the maximum acceptable concentration of neutral dust. The University's Institute for Environmental Studies will now attempt to determine whether the dust is in fact physiologically neutral and whether its particle size is such that it would accumulate in people's lungs.

Dr. Buchnea points out that an average person inhales about four and one quarter cubic metres of air in ten hours. At the concentrations measured, this would contain 1,533 micrograms of the aluminum-based dust, of which up to one-third, if they reached the aveoli, or very fine air tubes of the lungs, might be retained there. Particles that are less than one millionth of a metre in diameter reach the aveoli and may be retained.

### Investigation necessary

Professor Tom Hutchinson, director of the Institute for Environmental Studies, said he had read the paper with interest. The Institute, he said, brings together scientists of many disciplines, including medical doctors, physiologists and all types of engineer. "Many of them," he said, "are at present assessing the public health hazards of atmospheric pollution by lead but the use of air conditioners is very widespread and we will make it our business to investigate this new matter in an attempt to determine whether there is in fact a hazard."

The Buchneas' own investigation was motivated by Dr. Buchnea's discovery of a thick layer of grey dust covering all surfaces in various cold rooms in which air was maintained at between three and six degrees Celsius. The dust was analyzed and found to contain aluminum compounds. On visual examination of several air conditioners, the grills were found to be severely corroded. This discovery led to an investigation further afield. It was soon shown that, in normal working space whether the temperature was higher, the aluminum did not fall out as dust but was present in the air, nevertheless. Dr. Buchnea points out that the existence of other gaseous pollutants could influence the composition of corrosion products.

## Canada/Jamaica troop-training

A company of about 90 soldiers, and a 30-man band, from the Jamaica Defence Force will train at Canadian Forces Base Petawawa this summer.

From August 9 to September 8 the soldiers will work with their Canadian counterparts in regular-mechanized and weapons-training. During this time the troops will also take sightseeing tours of southern Ontario.

The program is part of a periodic Canadian/Jamaican exchange agreement under which soldiers from each country are able to take advantage of each other's training territory. It also permits the Jamaican troops to learn from experience with a larger force.

The last time Jamaican troops trained in Canada was in 1972.

Canadians will train in Jamaica at a later date.

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