

द्वार: "आकाशवाणी"
Telegram: "AKASHVANI"

भारत सरकार
Government of India
आकाशवाणी

आकाशवाणी-कार्यक्रम-1
(पैरा 5-10-11/5-11-15 देखिए)
AIR-P-1
(See Paragraphs 5-10-11/5-11-15)

All India Radio

वार्ता/लघु कथा शाखा
(Talks / Short Story Branch)

सेवा में
To,

Dr. A. A. M. Kuphi,
Scientist,
C. F. T. R. I
Mysore

सं.
No. Mys.15(4)/93-P4

दिनांक
Dated 9.9.93

महोदय / महोदया,

Dear Sir / Madam,

इस पत्र के पीछे छपी शर्तों पर हम नीचे लिखे विषय, दिनांक और समय पर आपकी वार्ता/लघुकथा सहर्ष प्रसारित करेंगे। कृपया संलग्न पुष्टिपत्र पर हस्ताक्षर कर के हमको लौटती डाक से भेज दीजिए। इसके लिए हम आपके आभारी होंगे।

We shall be pleased to broadcast your talk(s) / short story on the subject, date and time detailed below upon the conditions printed overleaf. We shall be obliged if you could kindly sign and return the attached confirmation sheet not later than _____

शीर्षक
* TITLE How Safe ^{is} the food we eat ? Talk in English.

दिनांक
Date(s) 1.10.93 (Recording on 23.9.93 at 2.30 PM)

प्रसारण का समय
Time of Broadcast 9.16 PM

प्रसारण की अवधि
Duration 12 Minutes

प्रसारण का स्थान
Place of Broadcast All India Radio, Mysore.

शुल्क रु.
Fee Rs. Rs. 250/- (Rupees Two Hundred & Fifty Only)

अनुवर्ती प्रसारण शुल्क
Subsequent Broadcast Fee -NIL-

(इस पत्र के नीचे छपी शर्तों के खण्ड 4(क) / 4(ख) / 4(ग) के अध्याधीन)
(Subject to Clause 4 (a) / 4 (b) / 4 (c) of conditions printed below.)

हमारा विशेष निवेदन यह है कि आप कृपया इस शर्त का पालन करके हमारी सहायता करें कि प्रसारण के लिए जो तारीख नियत की गई है उससे कम से कम दस दिन पहले वार्ता / लघुकथा की पांडुलिपि केन्द्र निदेशक के पास पहुंच जाए। इस शर्त का पालन न होने पर केन्द्र के सामान्य कार्यक्रम में गंभीर अवरोध पैदा हो जाता है।

We would particularly ask you to assist us by complying with the condition that the manuscript of the talk / short story should be in the hands of the Station Director not less than 10 days before the date fixed for the Broadcast. The normal routine of the Station is seriously hampered if this condition is not observed.

स्टैप शुल्क सरकार द्वारा वहन किया जाएगा।

The Stamp Duty will be borne by the Government.

भवदीय,
Yours faithfully,

कृते केन्द्र निदेशक,

For Station Director,

भारत के राष्ट्रपति के लिए और उनकी ओर से
For and on behalf of the President of India

* लघुकथा के मामले में लेखक उसका शीर्षक यहां भरे।

* In case of Short Story, the title of the Short Story will be filled in by the author.

Kunhi A. A.M. 1993, Text of the Radio Talk on 'How safe is the food we eat?' broadcasted by All India Radio (Govt. of India), Mysore Station on 1st October 1993 at 9.16 pm

HOW SAFE IS THE FOOD WE EAT?

It is well known that many of the chemicals used as food additives and adulterants may be hazardous to health. These chemicals are deliberately added to food materials for attracting the gullible consumers. However, the purpose of this talk is to invite the attention of the listeners to yet another very important and serious problem that we encounter with the food we eat. This problem has created a great concern in recent years. Yes, the reference is to the 'silent killer' that lurks in our food - the pesticide residues.

Recent analytical reports from different laboratories in India have revealed that almost all the food articles in our country are contaminated with high levels of pesticide residues, especially that of BHC, DDT, aldrin, dieldrin etc. Pesticides, as you are all aware, are chemicals used for controlling pests of crop 'plants and food commodities. They are commonly grouped as insecticides, fungicides, herbicides, rodenticides etc. All these pesticide compounds may belong to any one of the major chemical groups generally known as organophosphorous compounds, organochlorine compounds, carbamates, phenyl ureas, s-triazines etc. and the new generation insecticides - the pyrethrines. Among these groups of compounds, organochlorine pesticides to which class the widely used BHC and DDT belong are shown to be the most toxic. Benzene hexachloride or BHC is the common name of the chemical hexachlorocyclohexane, which can exist in about 8 different isomeric forms. The commercial preparations of BHC usually contain 4-5 isomers in different proportions. Among these gamma-isomer which is commonly known as lindane is the only insecticidal ingredient and the commercial BHC contains only 11-18% of lindane, the rest of the major bulk being ineffective against insect pests, but at the same time, a major environmental pollutant. Because of this reason most of the developed countries have banned the agricultural use of BHC and DDT since early 1970s. But, in many of the underdeveloped countries including ours these compounds are still being used in agriculture and public health programmes. In India about 35,000 metric tonnes of BHC and 15,000 metric tonnes of DDT were being produced annually

till about 2 years back. Now, it is heartening to note that as per the government restriction the production and use of these toxic chemicals are slowly coming down. These chemicals are highly persistent and remain in the environment for several years without being degraded. Even now, after 20 years since these chemicals are not in use in Northern America and Europe, residues of BHC and DDT have been detected in various food commodities. If that is the case there one can only imagine what would be the situation in our country where these chemicals are still in use. According to an estimate more than six hundred thousand metric tonnes of BHC has been used in India since 1951 till date. DDT also has been in extensive use in India since 1950s and aldrin, dieldrin, heptachlor in recent years. Now, our environment, both soil and water systems, has been very badly polluted with these and other umpteen number of chemicals. At this juncture let us consider how these chemicals reach human body. One way is through direct absorption through the skin when exposed to the dust of these chemicals. This is a major problem for our ignorant farm workers who usually do not wear protective garments and masks. Another route is through the food chain, which works at different levels. From soil the crop plants absorb these chemicals and store in their fat rich tissues such as seeds which are usually eaten by man. Thus we are directly exposed to it through the ingestion of food grains, vegetables, fruits and other vegetarian foods. Superficial contamination of these foods, besides what is there inside the food is also a major problem. Hence, it is highly necessary that these kinds of foods have to be thoroughly washed before eating. Most of the animals used by man for the purpose of milk and meat feed on grass and crop residues such as straw contaminated with pesticide chemicals thus getting them in large quantities and accumulating them in milk and meat. In water systems, the chemicals are taken up by planktons and other minute living organisms that are the main food for fish which, in turn is eaten by man. At every stage of the food chain a bio-concentration of these chemicals takes place thus reaching human body in a concentrated form. The level of these toxic chemicals which have been detected in almost all foods in India have been shown to be many fold higher than what has been described by WHO and FAO as permissible. Human fat also has shown

very high levels of these chemicals. It would be rather shocking to know that even breast milk in our country is not free from these chemical residues.

Thus we are continuously exposed to these dangerous chemicals after every meal. It has been shown that chronic exposure to even low levels of these chloro-organic compounds would cause cancer, birth defects, infertility, pulmonary edema, nervous disorders including insanity and other health problems. Moreover, recent research has revealed that the presence of these chemicals would drastically reduce the nutritive value of foods.

It is, indeed, an alarming situation. Unless we wake up to this morbid reality, at least now, this onslaught on our environment will go on and a time will come when this earth will no longer be suitable for human inhabitation.

Of course, it is heartening to note that the government, the scientists, the environmentalists and even the common man is getting more and more aware of this problem. But, as the use of pesticides cannot be stopped abruptly to keep up our agricultural production a judicial and scientific strategy has to be adopted, so as to gradually get rid of these toxic chemicals from the agricultural arena. Scientists all over the world and several laboratories in India, including Central Food Technological Research Institute (CFTRI), Mysore have been trying to develop less harmful chemical pesticides and also to develop totally environmentally friendly bio-pesticides. A number of bacteria, fungi, predatory insects as well as plant products are being screened for this purpose. Neem and a number of such plants have already been shown to be the best sources of effective insecticidal products. Till such technologies and products are developed and made available the farmers the use of existing pesticides will have to be continued. But, the farmers should be educated about the judicious and discriminate use of these chemicals. Concerted and effective measures also have to be taken up to clean up the already polluted environment. Attempts in this direction are also in progress in CFTRI as well as other laboratories.

I personally feel that there should be a total return to the traditional 'organic farming' systems in which no chemical fertilizer and no pesticide but the natural manure and cattle dung will be used. Neem or other plant-based pesticide preparations should be used for the control of insect pests. Many experiments in this direction also are going on in our country though in a small way. What is more important, at this juncture, is the effective implementation of the policy decisions as well as educating the farmers and farm workers about these aspects. Any way, it is not too late. A silver lining in the not so distant horizon could clearly be seen.