

Technical materials and pesticides

Adapted from the book "Capitalism and the disaster of environmental pollution" written by Hassan Abbasi

Technical materials (Processing Aids) are materials that are used to increase the life span, change the color, smell and taste of ready and semi-ready meals. These materials, which include 22 different groups, are about 250 official materials. 41 color substances, 49 preservatives, 44 antioxidants, 12 sweeteners and more than 100 other substances. These technical materials are not only used in the field of food production, but also in the preparation of medicine, cosmetics, shampoos and soaps. Polysorbate is one of these substances. Polysorbates cause skin sensitivities. People who are allergic to propylene glycol, which is present in cosmetic products, are also sensitive to polysorbate, which is added to food to dissolve fats.

In addition to official ingredients, thousands of other legal and illegal ingredients are added to foods. Among the dyes used, azo compounds are the most famous because they cause allergies, asthma, and skin changes such as hives. Among these substances is carminic acid, the same attractive red color that increases the sales of sweets, syrups and candies, causes insomnia, hyperactivity, fetal damage and aggression.

Sweeteners such as sorbitol cause intestinal problems, also intestinal infections, brain diseases, muscle cramps, aggression and depression. The vast majority of these substances are produced in the form of chemical synthesis, and therefore, as soon as they enter the body, they are attacked by the enzymes that the liver produces to fight unknown substances. As a result of high or long-term consumption of some of the mentioned substances, the human body suffers from disorders. Headache, excessive sweating, sore throat and increased pressure in the chest are among these disorders. These symptoms are known as Chinese restaurant syndrome. Because these ingredients are widely used in the production of ready and semi-ready Chinese and Asian foods, and thus, since the 1970s, they have entered the field of meals in other markets of the world, including chain restaurants. Excessive consumption of these substances has destructive effects on the fetus, liver, nervous system and vision, and also causes asthmatic shocks, depression and growth problems in young people and hormonal disorders. Another issue that is important to mention is the addition of phosphorus compounds to ready and semi-ready meals. This substance is absorbed by the body in a much higher amount than needed. Phosphates are used to preserve and sour the taste of food. The harmful effects of increasing the consumption of phosphorus compounds are very high, and heart diseases, reduced capacity of kidneys and cancer can be mentioned among the complications of its unnecessary consumption. About 70 percent of semi-prepared foods such as chips and all kinds of sweets and breads contain all kinds of phosphorus compounds. Phosphate is also used as a leavening agent. By adding phosphate, the dough takes a natural shape in a short period of time without going through the

preparation process of several hours and sometimes several days, caused by the influence of sourdough in the bread dough.

Pesticides, the product produced in capitalism, cruelly kill nature and plants, and they have such a capacity to produce poisoning. In particular, the life of these poisonings is so long and permanent that even the most resistant creatures and cleaners of nature, that is, fungi, bacteria, microbes and other tiny beneficial organisms, cannot deal with them and neutralize them. An example of these toxins is D.D.T , which has been used as an insecticide since the mid-1950s. Although the use of DDT has been restricted in most countries, but, its terrible destructive effects on aquatic animals, humans and nature still remain. D.D.T has destructive effects on the nervous system, decreases bone calcium, and disrupts the sexual system. D.D.T in this way, through the chain of foods, is transferred to other organisms and finally to humans. Hormonal changes, sterility and remaining in the body, and the long-term cycle of pesticides in the human body, animals and plants are among their side effects. Biocides not only cause organ disorders in food consumers, but are also found in clothes too. Fabrics are disinfected with antibacterials during production and distribution so that they both smell good and reach the market safely. The presence of these biocides have hormonal effects on living organisms, and these, like other hormonal drugs, cause fatal diseases in the agricultural workers. In most cases, more than several biocides are used per product unit. In this case, the exponential increase in the effect of biocides on each other is a very clear phenomenon, and this can happen when we eat different foods such as fruits, vegetables, etc. that contain different pesticide substances. Another very important point is biocides that have destructive hormonal effects. These change from year by year in terms of number and molecular shape. According to some reports, grapes are called as one of the worst products in terms of carcinogenic, sterilizing and hormonal substances used in pesticides for grapes'pests. Agricultural capitalists in France, Italy and Spain are the biggest consumers of biocides. The important factors involved are the grape and wine production companies of these countries. Some wines even contain up to 10 different biocides, and it is not surprising to find an average of four different biocides in a bottle of wine. In capitalist production relations, workers are producers of all commodities and capital, but not only the workers are unable to interfere and influence the process and fate of these productions, rather, capital, in order to earn more and more profits, will do whatever it wants against workers lives, livelihood and health. The entire life of the capitalist system is a very short period compared to the history of human life. We, during this short period of capitalism in history, have become human beings who experience a life inside the cities and in the midst of a lot of smoke and pollution along with suffering from hundreds of types of chemical diseases that is a result of this relationship. But the problem is not only this, because billions of workers work in environments that are full of chemicals and are harmful to human life and beneficial bacteria in the body. Insects, rodents, weeds, fungi, bacteria, worms, parasites, even spiders and birds are creatures that are attacked by the poisons produced by agricultural and chemical companies, and also this is one

of the biggest attacks of capitalism on these tiny and small creatures of nature and the human body, which makes people defenseless against allergy epidemics. Apart from the substances that are produced and distributed with the aim of killing and destroying microorganisms and microbes, there are about 10 million known chemicals in the world today. Of this amount, about 50,000 types of chemicals are actively used in various products. One third of the chemical products that are used by the general public contain one or more allergenic substances, while the same amount of chemicals in 1995 was about 16% . All research really points to the same thing. The type of life that capitalist production relations have imposed on human life with its own narrative of modernization has become a life immersed in a multitude of unfamiliar chemical substances for the human body. Right now and during the period after the second imperialist war, more than 100 dangerous chemical substances circulate in the human body, without being destroyed. A new area and field of capital is the production of materials in the form of nano (nanotechnology), that is, chemical substances in very small sizes of atoms and molecules (1 to 100 nanometers). The bioaccessibility (state) of nanomaterials is different from conventional materials, as they easily pass through the sidewall of cells and vessels and enter them. The incidence of cancer in the Saudi world is astronomical. The official sources of the Islamic Republic of Capital in 2019 have reported the rate of cancer in Iran as 158 per 100,000 people, and research by the Ministry of Health of the Islamic regime of capital shows that cancer will double in Iran in the next 15 years. The situation is the same in the entire capitalist world. The number of cancer patients in Sweden in 2011 (annual prognosis) was 58,000, which is 644 per 100,000 people. According to this report, 1.7% is added to this figure every year, which is 72,000 people in 2017, which means 758 people per 100,000 people in Sweden. In the central province of Iran, in 2019, an increase in cancer, sterility and heartless fetuses, children's disabilities, skin diseases and finally deaths have been reported. The pollution caused by the "oil refinery, petrochemical and thermal power plant" has been identified as the cause of the epidemic of severe diseases among the people of this region. Environmental damage includes the illness of most of the people in this region, the poisoning of agricultural land and livestock. In recent decades, humanity has witnessed the emergence and rise of all types of cancer, allergies, sexual disorders, defective births, and hormonal disorders. One of the biggest and most important human genetic and sexual changes in the period after the second imperialist war is the decrease in reproductive power and the occurrence of sexual disorders. So that gradually after the war, humans have been forced to use more and more other means such as in vitro fertilization or artificial insemination. For example, in Denmark, one out of ten children is born this way, and this trend is expected to increase. Danish researchers believe that the primary reason is the decrease in the activity of male sex cells. At the same time as the 400% increase in testicular cancer after the imperialist war, among Danish youth, the researchers concluded that these two factors reduce the activity of germ cells in addition to testicular cancer and increase infertility. In their further research and analysis, they declared the increase of hormone-like

chemicals, its penetration in the fetus and the occurrence of genetic changes in the sex cells of boys at the age of 13 years as the main cause of all these diseases and disorders. Similar results have been observed in Norway, New Zealand, Scotland and France. Other side effects caused by hormonal changes related to similar substances are children's cancer, obesity and diabetes. In the meantime, the mutual effect and the exponential increase in the destruction of several chemical substances (Cocktail effect) should not be underestimated. Are these not the process of annihilating humanity and sacrificing the lives of billions of workers in the continuous continuation of exploitation at the highest possible level and speeding up the process of capital accumulation ? Isn't it time for capitalism and wage labor relations to be brought down, and a social relations that are based on the real needs and desires of all human beings, away from any kind of wage labor relation and will be based on the preservation of nature ?

Of course, if such a real and great change is not made soon, this system and production relations under the pressure of contradictions and problems of reproduction and capital accumulation, and most importantly the drop in the rate of capital accumulation, will lead to the wide and deep destruction of the lives of billions of people.

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