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CD Experts Explain Biological Warfare

Biological warfare—what is it? What are its dangers? What kinds of germs and poisons might be used? What should the individual do in the event it occurs? What would happen after a biological attack was spotted? What precautions should the individual take after an attack?

These are the questions covered in this series of two articles. The Eccentric is presenting on information prepared by the Michigan Office of Civil Defense and is based on the civil defense booklet, "What You Should Know About Biological Warfare."

PROBABLY NO ASPECT of modern war is as misunderstood by the general public as the dangers of germ and chemical warfare.

John Murray, chief of the public affairs division of the Michigan office of civil defense, states, "Our mail from Michigan citizens tends to show two extremes in attitudes. Some people indicate a disbelief in the possibility of likelihood of germ or chemical warfare; others are disturbed by the fictional accounts of 'germ bombs' wiping out whole populations at a time."

BIOLOGICAL WARFARE is the technique, well-known to our enemies, of attacking a nation with living organisms such as plants, insects, and those that come with poisons or toxins, such as bacteria, and with special kinds of chemical, such as weed killers. Biological warfare is often called "germ warfare," but actually it is broader than that because it includes attacks with chemical agents.

Civil Defense officials emphasize that biological warfare is a special weapon for use against special targets. It doesn't kill or sicken every person in a whole state or even one city.

Attacks by insects, toxins or chemicals can be aimed at people, animals or food crops, or all three at once. Such attacks can be launched by the armed forces of an enemy nation or by secret agents.

Biological warfare isn't a secret super weapon, experts say. There are defenses against it and these articles will explain what they are. Biological warfare isn't new, but the techniques of waging such attacks have been rapidly developed the past 50 years.

AMERICA'S DEFENSES against diseases are about the best.

in the world, civil defense authorities point out.

Restaurants are graded, drinking water purified, foods checked for purity, rats and other disease-carrying vermin are constantly fought and mosquito-breeding pools are treated. This country's "natural germ warfare" is shown by the record of diseases such as smallpox and typhoid fever. Fifty years ago, these diseases caused wholesale epidemics. Now they are very rare.

However, civil defense authorities point out that in spite of America's great health safety system, BW holds dangers that every citizen should be aware of.

The danger is not from unknown or rare diseases attacking humans, animals or crops. The real danger is in new ways of spreading old diseases.

Civil defense experts scoff at the new "mystery" germs or poisons, depicted by some fiction writers as so powerful that millions of people would die in one exposure. They insist the real danger is from known diseases.

AN ENEMY NATION could spread disease germs through the air by floating them in fine sprays or mists, technically called aerosols. Bathroom atomizers, DDT bombs and spray guns produce small-scale aerosols.

The aerosol method of spreading disease germs has been tried in actual warfare. However, it is possible BW attacks could be loosed from special sprayers carried in airplanes. If the enemy could succeed in making an attack close to the ground.

The official Civil Defense booklet, "What You Should Know About Biological Warfare" states, "If a small, hotbed of laboratory-grown germs was spilled on a factory floor, the bugs would have little chance of getting inside people's bodies where they could cause harm."

The best result an enemy could hope for would be that a few people in the factory might become sick, and the disease might later spread from them to others.

THE BOOKLET CONTINUES, "On the other hand, if the same number of germs were loaded into a spray gun and then blown into the intake of a factory ventilating system, most of the people in the factory would breathe in some of the germs."

"Many would become infected right away. That is one of the kinds of sabotage our industrial plants will guard against."

An enemy could use fifth columnists to pollute food and water supplies. Wheat, past and fowl pest could be loosed against farmers.

No single type of germ will make everyone sick, civil defense officials emphasize.

They point out that there is no need to worry about "mystery" germs and poisons destroying whole areas at a time. Most of this, the civil defense booklet says, is pure scaretalk built on twisted facts.

EXPERIMENTS RUN IN World War two showed that one ounce of botulinus toxin could kill 840 billion mice.

The booklet comments, "Some dreamer promptly figured, by comparing the weight of a human being with the weight of a mouse, that one ounce of botulinus toxin would kill about 220 million human beings—more people than there

are in the whole of North America."
Experts state how ridiculous it is to conceive of spreading one ounce of poison evenly among 220 million humans. Furthermore, laboratory workers succeeded in discovering a botulinus toxin to make people resistant to the poison.

What diseases then would be used in biological warfare? If an enemy wanted to kill large numbers of people, he might use plague, typhus, cholera or smallpox. If he wanted only to make large numbers of people sick to tie up doctors and hospitals and cripple production, rabbit fever or undulant fever might be used.

ANTHRAX AND GLANDERS might be used against animals on which we depend for food and clothing; fowl pox and Newcastle disease could be directed against poultry; rinderpest might be aimed specially at cattle or sheep; and disease and insect pests could damage grain and fruits.

It should be emphasized however, that the kinds and effects of the biological agents that might be used against us are well known to our scientists.

Next week, this series will be concluded with explanations of what the individual should do in the event of biological warfare; what would happen after an attack was spotted; and what precautions should be taken by individuals after an attack.

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