

PUBLIC HEALTH

# Pollen Attacks

War and weather have combined this year to step up the crop of ragweed and other hay fever weeds and also to prevent victims from taking refuge.

By GLENN SONNEDECKER

► WAR AND WEATHER have doubled up to produce a bumper crop of sneeze-provoking weeds this year. August brings the peak of aerial invasion by ragweed pollen, the hay fever victim's chief enemy.

Nearly 4,000,000 people in the nation will fall victim to bombardment by microscopic pollen grains dropping from the skies, it has been estimated. Fatalities will be few but physicians are sounding an alert so that prospective sneezers can take all possible precautions to avoid suffering and lost time in the war effort.

This year started out as a bad corn year, which usually portends a poor crop of ragweeds and other provokers of late hay fever, for they both thrive on much the same kinds of soil and weather. But the rain that kept farmers from getting seed in the ground and set back the corn crop failed to stymie the hardy ragweed. Its seed had already been self-sown, away back last fall. So although the cool spring weeks slowed down its growth somewhat, it was right there on the job, and when the hot summer days came it fairly humped itself along.

The many small floods of the spring were also favorable for ragweed growth. Giant ragweed is especially fond of recently flooded bottom lands where a thin layer of rich mud is left behind by the retreating waters.

## Labor Shortage Contributed

Even after the crops were in, unseasonable rains in many sections gave the weeds a head start over the farmers by preventing early and clean cultivation of fields. War itself worked hand in hand with the sneeze weeds, for the shortage of farm help and farm machinery kept them from overtaking the myriad of fast-growing weeds.

Of perhaps greater importance to city dwellers is the disappearance of the scythe crews from the CCC, WPA and other relief agencies, who are now helping to cut down more formidable ene-

mies by service in the armed forces or war industry. In less bustling times these workers made considerable headway against the thick jungles of giant ragweed and wild hemp now seen more frequently along the highways and on vacant lots and other city wastelands.

## Hemp Is Feared

Reports that hemp growing is being pushed by the government in several midwestern states to meet Navy needs for rope may have caused some consternation among allergy victims, for this tall, tough-fibered member of the mulberry family is also a tough member of the rogues' gallery of allergy-producers.

Hemp is supposed to be harvested before it begins to shed pollen, however, so it should not cause much trouble. Farmers whose hemp crops do not

pan out well should cut them whether they harvest them or not, simply to prevent the plants from flowering.

Hazard of wartime production is that the unruly plants will escape cultivation and become a first-rate troublesome weed. Before the war, hemp cultivation in this country was strictly regulated because it is the source of a narcotic drug; our commercial supplies of the fiber had been imported from the Philippines and elsewhere in the East. But today there are probably thousands of acres of wild hemp growing as a vestige of former days of hemp cultivation in the United States.

Another enemy alien, a rough member of the goosefoot family that immigrated more than a half-century ago, is Russian thistle. Hotfooting it across the prairies, this prickly tumbleweed has left a trail of hay fever casualties clear across the western half of the country.

## Worse Than Ragweed

Even a larger proportion of the population in this area is reported to be sensitive to Russian thistle pollen than is



**HAY FEVER WEAPON**—An Army nurse prepares the first of a course of desensitizing injections, selected on the basis of the tests, from a rack of solutions containing the various sneeze-producing pollens.



**DESENSITIZING**—Although the Army has rejected thousands of men because of hay fever, a brawny soldier is sometimes reduced to an ineffective state of snuffles and sneezes by the massive doses of pollen encountered in field operations. Lt. Col. L. E. Leider, M. C., of Walter Reed General Hospital, is shown giving a treatment of desensitizing pollen solution to one of the men.

the proportion of ragweed sufferers in the ragweed belt. The season of pollination is now on and will continue well into September.

Many Americans are up against sneeze trouble and all the other uncomfortable symptoms for the first time because of a visit from the migrant Mexican fireweed or burning bush, alias summer cypress. This plant has spread through sections of the Midwest, is now rampant in Iowa, Nebraska and Colorado, and is moving into adjacent states.

Spearhead of the pollen attack will be the ragweeds, of course, chiefly the tall and short varieties. The main assault will be launched in northern states early in August, with the pollen clouds spreading over the whole Mississippi valley a few days later. If operations proceed according to schedule, the Gulf coast will be reached by September.

#### 1,000,000 Tons

There will be no shortage of powder for the pollen barrage. Botanists have estimated that a quota of around a million tons of yellow stuff is on order. Even though there are no hay fever

weeds in your neighborhood, few will escape for the light pollen can drift 15 miles or more, often soaring five or ten thousand feet into the air.

Most busy Americans will be unable to take the time this year to flee to the North Woods or to the mountain areas where the attack will be slight. In fact, many patriotic workers who join the land army will be exposed to more massive doses of nature's sneeze powder than ever before.

#### Attacks in Field

America's fighting men face the same situation in field operations. Although the Army has rejected thousands because of hay fever, some brawny soldiers have been reduced to an ineffective state of sneezes and snuffles by allergy-producing pollens and sent to Army hospitals for treatment.

On the home front, defense measures will include improvised gas masks and more effective commercial respirators. Some sufferers will take to air-conditioned pollen-proof shelters. As hay fever victims know, this does not include air-cooling, for chilling usually

brings on a paroxysm of sneezing. Loss of body heat causes an abnormal swelling of tissues in the nose, with resultant sniffing and sneezing.

Since alcoholic drinks cause heat loss through dilation of the blood vessels, tipping is likewise taboo.

Most successful treatment is the desensitizing injection of pollen solutions, which build up an immunity. It is most efficient if started at least a couple of months before pollen arrives, but is often effective when taken during the hay fever season.

Nine out of ten treated get relief, and one authority estimates that careful specific treatment for one to four years will give permanent tolerance or cure to one-third to one-half of the patients.

Tracking down the offenders is the physician's first job. Small amounts of the suspected pollens are injected beneath the skin. Those to which the hay fever victim is abnormally sensitive raise small white or pinkish places on the skin, called wheals.

When the pollens are thus identified, the physician proceeds with a course of injections of pollen solutions. Starting with small amounts, he increases the quantity until the patient has been desensitized.

*Science News Letter, August 14, 1943*



**TEST**—First step in effective treatment of hay fever is the test injection of small amounts of solution made from various kinds of pollen. Wheals are raised at the site of injection by the offending pollen or pollens.