BOTANY

NATURE RAMBLINGS

by Frank Thone

Plenty of Ragweed

HAYFEVER is expected to be bad this year, as ragweeds all over the eastern half of the country begin to shed their pollen. This growing season has been exceptionally favorable for the development of ragweed, and there is every reason to believe that these ill weeds have exercised their proverbial propensity for growing apace.

To begin with, last year was a "good" ragweed year, too, so that a huge crop of seeds was produced. Although the past spring was rather dry over wide areas, abundant rains have blotted out all memory of the spring drought, and the combination of moisture and warm weather has boomed weed growth.

While no official census is taken of weeds, the U. S. Weather Bureau does maintain a weekly check-up on the state of crops in relation to the weather. Corn and cotton are reported as growing fast (cotton too fast, in fact), and since ragweeds thrive on the same kind of weather that favors these crops, they may be taken as indicator plants for the general state of the producers of pesky pollen.

Another factor that favors ragweeds, at least around urban areas, is the reduction in the ranks of CCC and WPA workers. One of the regular jobs assigned to groups of these men has been the scything down of ragweed patches. How much actual good such mowings have done is debatable, except in such communities as insisted on having all ragweed cleaned out, on the city dumps and on the wrong side of the railroad tracks as well as in comfortable residence districts. Air-borne pollen flies for miles, so that anti-ragweed campaigns do little good unless they are carried to the point of total extermination.

In some places (perhaps where the Mayor is himself a hayfever sufferer) the ragweed extermination campaign has taken the mistakenly vindictive form of pulling the weeds up by the roots instead of merely mowing them down. This does more harm than good; for ragweeds are annual plants, hence are as effectually killed by mowing as by uprooting. Uprooting even favors the next year's growth, for it loosens the soil and gives better chances of growth to last season's seeds lying dormant for a year or two.

Although ragweeds cause probably nine-tenths of all hayfever sneezes, they are not the only shedders of troublesome pollen. Cocklebur, wild hemp, narrow-leaved plantain, several grass species both wild and cultivated, and a number of kinds of trees, all contribute their quota of sneezes and itching eyes at appropriate seasons.

One plant is widely but falsely accused: goldenrod. Its pollen is sticky and heavy, and can travel for only the shortest distances on the wind. It is the misfortune of this fine wayside plant that it breaks into bright bloom just when the green, unnoticed spikes of ragweed are shedding their pollen. So, like many another innocent bystander, it gets the blame while the real culprit is permitted to escape.

Science News Letter, August 2, 1941

PHYSICS

Cause of Night Glow of Sky Is Magnetic Activity

THE SOFT glow of the sky at night is not just starlight and moonlight, but is due to the magnetic activity of the earth and its atmosphere. Definite evidence to support this fact has been reported at the University of California's Lick Observatory.

Donald R. Barber, a British astronomer who has been engaged in research at the Lick Observatory for the past year on a fellowship, conducted the research. Astronomers have long speculated on the cause of the night glow, which is visible even on moonless nights. Those who attempted telescopic photographs have often had their photographic plates clouded by this eerie light which varies from night to night and hour to hour.

Astronomer Barber systematically measured the night glow in a small area near the north star, a part of the heavens that is always conveniently situated for observation. Systematic measurements of the earth's magnetic field were made simultaneously, and comparison of these measurements proved a direct relationship between the two.

Magnetic currents which ceaselessly flow around the earth are probably stimulated by radiations from the sun, principally active during daylight hours. The readjustment of the night atmosphere from solar disturbances of the day before probably are the cause of the heretofore unexplained night glow.

Mr. Barber's finding not only gives answer to another of the mysteries of the heavens, but will be of practical use to future study. By scientific observation of daylight magnetic conditions, the intensity of the coming night glow may be predicted, assuring greater success for long exposure photography.

Science News Letter, August 2, 1941

● RADIO

Thursday, August 7, 2:45 p.m., EST

On "Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

O. C. Durham, chief botanist of Abbott Laboratories, will discuss "Allergy from the Air."

Listen in each Thursday.