

BOTANY

# Principal Hay Fever Season Marches up Map on Schedule

## Ragweeds Come Into Bloom Earlier in Northern States; Spores of Certain Species of Fungi Also Cause Sneezes

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**A**LL ALLERGY, like all Gaul, may be divided into three parts—three, because of the three principal avenues of entrance or points of attack. Allergic poisons may, in the form of cosmetics, chemical or plant juices, penetrate the skin of the hands, face or other parts of the body and thus assault us from without. They may be swallowed, as food, and subsequently snipe at us from within. But the most common and most insidious offenders are those invisible enemies that pounce upon us from the air. They find our most vulnerable spots—the tender membranes that cover the eyeballs, and those that line the eyelids, the nasal cavities and the lungs.

With reasonable care we may usually succeed in avoiding unfriendly food and chemicals. But the aerial allergy attack by pollen grains, mold spores and buoyant insect scales is so widespread, so intense and long drawn out that special personal defense measures must be taken. Nevertheless, a certain grim satisfaction may be had from the fact that there are few surprise attacks. All of the major allergenic broadsides are loosed on well-developed schedules.

Over the northern and eastern states the blossoming dates of ragweed are well synchronized, but in the south central and southern states the weeds usually come to maturity later than in the north. However, there are a few interesting local exceptions. The Arizona ragweed season occurs in the spring—March and April—instead of August and September. In southern Florida, on land where winter tomatoes and other vegetables are grown, common ragweed comes into full bloom in May. Wyoming has a small amount of ragweed pollen in the air in June and July. Along the Gulf Coast, from Tampa to Brownsville, ragweed pollination begins in September and drags along well into November.

If one were anxious to follow ragweed around the calendar and the map he could keep in close touch with it about nine months out of the year. He could dodge it almost completely by staying in Houston until about the last week of September and then changing his residence to some northern city. A non-stop flight from Houston to Minneapolis by plane at 10,000 feet altitude would do the trick.

Spores of certain kinds of fungi, principally molds, cause hay fever and asthma in just the same way as pollen, but not necessarily in the same persons. One man may be sensitive to certain pollens only, another to mold spores but not pollen, and still another to both pollens and spores.

It is possible to prevent the symptoms caused by mold spores. The skin testing and treatment are carried out in the same way and produce the same degree of benefit as pollen treatment. A grad-

uated series of hypodermic injections brings the patient's tolerance to a high level before the season begins and the treatment is continued at regular intervals to keep up the tolerance through the season.

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PHOTOGRAPHY

## Infra-Red Photoflash Bulb Takes Pictures in Darkness

**A**MATEUR photographers may now photograph the proverbial black cat in the dark cellar—and do it without the cat knowing he's been photographed.

Several years ago, as a special stunt, a group of executives visiting the research laboratory of a large photographic concern were so photographed, with infra-red rays, which consist of waves too long to affect the eye. But now a special photo-flash bulb will soon be placed on the market, to permit any photographer to take such pictures. The bulb is covered with a filter that looks black, because it stops all the visible light. However, the infra-red goes through freely.

Ordinary film will not work with this bulb, but infra-red sensitive film is now available from several manufacturers. As the rays are focussed at a different plane from those used in ordinary photography, the focussing must be changed



PICTURES IN THE DARK

*Now you can take a photograph in your lightless darkroom without fogging the print that is just coming up in the "soup." It is made possible with the new "Blackout Superflash." This picture was taken at 1/50th of a second, f 5.6, 6 feet from the camera. The only other light was an ordinary ruby safelight.*

slightly if sharp pictures are to be secured. The most convenient way of using the new bulb is with a synchronizer that permits snapshots, the shutter being opened automatically while the flash is at its height. However, as with ordinary flash bulbs, the shutter of the camera, on a firm support, may be opened, the bulb fired, and then the shutter closed. This method is not effective in stopping rapid movement.

Photographs may be taken in theaters and similar places without disturbing the audience. Another use is seen in case of possible blackouts, where photography can be done without the visible flashes of light that might be of use to enemy raiders.

The new infra-red flash bulb is manufactured by the Wabash Photolamp Corporation, of Brooklyn, N. Y.

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PHYSIOLOGY

## Record-Breaking Case of Weight Reduction Reported

### Woman Gets Rid of 300 Pounds in 18 Months; Heroic Dieting Causes Improvement in Health

**L**OSING 300 pounds in 18 months is the heroic feat in reduction accomplished by a woman patient whose case is described by Dr. James J. Short, associate professor of medicine in Columbia University's post-graduate medical school, in the *Journal of the American Medical Association*. (Aug. 16).

The patient, who for obvious reasons remains nameless, is a married woman 35 years old. She had always been a "fat girl"—she weighed 200 pounds when she was 14; 260 pounds at 21. Both her parents had been big persons; her father a six-foot 200-pounder, her mother decidedly stout. She herself had abnormal dietary habits, eating moderate quantities of meat, fish and eggs, little fruit and no vegetables, but stuffing herself with large amounts of cake and other baked goods.

Finally, with a troublesome cough of five or six months' duration and a number of other distressing symptoms, she presented herself for medical treatment. There seemed to be nothing the matter with her except extreme obesity, so a diet calculated to produce rapid reduction was outlined for her. Since it seemed unlikely that she could exercise sufficient self-control during the reducing period, she was placed in a nursing home where she would have no chance of raiding the pantry, no matter how hungry she became.

The diet provided first for sufficient proteins to replace ordinary losses from muscles and other non-fatty tissues, and also insured proper vitamin intake. Heaviest cuts were in fats and carbohydrates, the fat-making foods. Total

calories were between 600 and 800 a day—about half the usual requirement for a normal adult.

The patient lost weight rapidly from the first. Over the 18-month period the loss averaged 16  $\frac{2}{3}$  pounds per month. In the end, she had been transformed from a behemoth of nearly 480 pounds to a husky but trim-enough figure of 175.

There were difficulties on the way, to be sure. The patient was anything but

comfortable at times, and complained of nausea and abdominal pains. More serious was an acid condition that occasionally threatened. At such times, the diet was readjusted to include a little more carbohydrates, which are alkalinizing foods. All the way, a mass-reduction job of this kind was not a thing for an amateur to attempt; it required the constant vigilance of a medical specialist.

After the masses of fat had disappeared, there was still a serious condition to correct. The human skin does not shrink as drastic reduction occurs, and at the end of the treatment the woman had loose, unsightly, drooping folds of outer tissue on her body and arms. To correct this, surgical operations were necessary, to take out the slack.

Her muscles, once interpadding with fat, had become loose, so that at first she could scarcely walk. However, muscle tone was eventually spontaneously restored, so that she is now able to get about and do her housework in about normal fashion.

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## ● RADIO

Thursday, August 28, 2:45 p.m., EST

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

Dr. Marston Morse, president of American Mathematical Society, will discuss "Mathematics in Defense."

Listen in each Thursday.



### CLOUD SHORTHAND



This is the new symbol used on U. S. Weather Bureau maps for these wool-pack or cumulus clouds. The picture and symbol on the cover are of the cumulonimbus, or "anvil" cloud, familiar on thundery hot days in summer.