● RADIO

Saturday, Feb. 2, 1952, 3:15-3:30 p.m. EST

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

Dr. Harlow Shapley, director of the Harvard College Observatory, Cambridge, Mass., discusses "Exploring the Universe."

MEDICINE

Drug Quiets Hangover Nervousness Quickly

➤ HANGOVER SHAKES, nervousness and "butterflies in the stomach" can be relieved, often in half an hour to an hour, by a drug called Dimethylane, four Philadelphia physicians report.

In their studies, 42 patients recovering from "an acute bout of intoxication" swallowed this drug in gelatin capsules four times a day. The drug was stopped whenever a patient was free from the nervousness and trembling for four hours.

The average time required to free the patients from their symptoms was just under 24 hours (23.8 hours). Fourteen recovered within 12 hours or less. By contrast, patients given a barbiturate sleeping pill required an average of 38.3 hours to recover.

The drug did not cause any toxic symptoms and has a "wider margin of safety and greater activity" than Myanesin, another relaxing drug which has been used in place of barbiturates to relieve postalcoholic jitters.

Dimethylane's chemical name is 2,2-di-isopropyl-4-hydroxymethyl-1,3-dioxolane. Its successful use for postalcoholic jitters, medically termed psychomotor agitation, is reported to fellow physicians by Drs. Martin D. Kissen, H. Edward Yaskin, Harold F. Robertson and David R. Morgan in the QUARTERLY JOURNAL OF STUDIES ON ALCOHOL (Dec. 1951).

Science News Letter, January 26, 1952

CHEMISTRY

Soybean Oil Off-Flavor Removed by New Method

➤ A WAY to get rid of the beany off-flavor of soybean oil so that it will not come back on standing has been found by U. S. Department of Agriculture scientists.

Present methods remove the beany taste of this oil, but only temporarily. After standing, the off-flavor returns. The beany taste, the scientists have found, is due to the presence of highly unsaturated linolenic acid. In the laboratory this off-flavor can be removed by saturating only the linolenic acid. Methods are now being tried to find commercial ways for making this acid saturated without affecting the rest of the soybean oil, states Dr. George W. Irving, of the Bureau of Agricultural and Industrial Chemistry.

Science News Letter, January 26, 1952

ENTOMOLOGY

Party Line for Bees

Soviet Russian bees now ordered to follow the party line instead of traditional beeline. Both U. S. and Russia having trouble with bees.

➤ SOVIET RUSSIAN bees now are being ordered to follow the party line instead of the traditional beeline. They must fly straight to flowers of the Red Minister of Agriculture's choice.

American bee experts do not think the bees will bow easily to Red orders. They think the commissars are not taking the bees' intelligence into account.

Both countries are having serious trouble with bees. The bee is one of nature's chief agents for producing seeds of grasses and clover used in crop rotation, of alfalfa for cattle fodder, and of many other plants. Production of seeds in this country through pollination by bees has gone down in the past 25 years, mostly through neglect by American farmers.

Now the Russians claim they have trained hordes of bees to seek nectar and pollen from specific plants chosen by the farmer, ignoring all others. The claim is made in an article appearing in the 1951 annual edition of VOKS Bulletin, publication of the U.S.S.R. Society for Cultural Relations with Foreign Countries.

James R. Hamilton, bee expert for the U. S. Department of Agriculture, doesn't think the Russians have been able to train bees, despite their claims. He says the bees are too smart to be forced into ignoring sweeter nectar and more nutritious pollen elsewhere.

The Soviet article, written by I. Khalifman, Stalin prize winner, says that the bees were trained by using the principles established by Ivan Pavlov, Soviet psychologist and expert on conditioned reflexes in animals.

Bees were fed on syrup flavored with the plant which it was desired to pollinate, according to Mr. Khalifman. Then, when released, they went straight to those plants. One day, it was claimed, 2,225 of a group of yellow Caucasian bees which had been fed on red-clover-flavored syrup went to the red clover patches, while 2,250 black central Russian bees, previously fed on heather-flavored syrup, made a beeline for heather flowers. That evening, the experimenters, according to Mr. Khalifman, switched brands on the bees, giving the yellow Caucasian hives shots of heather, and setting up drinks of red clover for the black bees.

Three days later, says Mr. Khalifman, 2,875 yellow bees sipped nectar from heather plants, while 2,837 black bees drank their fill of red clover.

The bees became so well-trained, the Stalin prize winner claims, that they could tell one brand of grape from another.

Mr. Hamilton pointed out to SCIENCE SERVICE that the Russians were basing their bee-training experiments on work of an eminent Austrian bee expert, Dr. Karl Von Frisch. Dr. Von Frisch, according to Mr. Hamilton, had, in the laboratory, succeeded in training bees to a certain extent. But experiments in the field along those lines both in this country and in Holland showed, according to Mr. Hamilton, that the bee was not to be fooled with a little classroom work with one brand of nectar. If better brands were available, the bees sooner or later would find them.

Mr. Hamilton points to great advances in this country made in pollination and production of seeds through placing bee hives close to or right in the middle of fields of the desired plants. Average production of alfalfa seed in California per acre three years ago, he said, was 275 pounds. Using five colonies of bees per acre on a 132-acre plot, a production of 1,128 pounds of seed per acre was achieved.

Mr. Khalifman claims in his article that this system can be discarded in favor of the trained bees. Mr. Hamilton said that they may have thought they needed to discard it because the smart bees, once they became oriented to new surroundings, found greener fields beyond the desired area. Americans solve this problem by moving the colonies before they become too well oriented.

Mr. Hamilton pointed out that the decline in this country of production of seeds by bee-labor is a serious thing. Utah, he said, produced 25,000,000 pounds of alfalfa seeds this way in 1925. Now the rate is 3,000,000 pounds a year. Using bees in the fields through this new American method promises to send the rate up again.

Science News Letter, January 26, 1952

MEDICINE

World-Wide Hunt For New Diseases

➤ A WORLD-WIDE hunt for new and important human diseases is underway by the Rockefeller Foundation's laboratories in New York and in India, Egypt and elsewhere as the result of the discovery of insect-borne viruses during recent yellow fever research.

Five or more of these viruses seem to be related to known encephalitic agents capable of causing severe infections in man and animals. Field investigations and laboratory work are directed by Dr. Max Theiler, who received the 1951 Nobel prize in medicine for his yellow fever researches.

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