Life Sciences Notes

REGULATION

FTC Hits Aspirin Ads

Aspirin is always and only aspirin, the Federal Trade Commission says.

Any drug-maker who claims his aspirin is better or faster than others may have to back his statement in court, if FTC-proposed rules on advertising go into effect. Industry and the public have until December 15 to comment on new regulations that would require manufacturers to prove significant differences exist between similar over-the-counter analgesics. FTC also wants "combination of ingredients" pain-killers to list their ingredients by common name.

Last year, drug manufacturers spent $90 million in advertising their products as fastest, most often recommended by leading physicians and least likely to upset stomachs.

The FTC says, "It appears that each of the various analgesic products now offered to the consuming public is effective to essentially the same degree as all other products supplying an equivalent quantity of an analgesic ingredient or combination of ingredients."

ENTOMOLOGY

Death by Cigarettes

Spotted alfalfa aphids live on potted alfalfa plants, but can't stand smoke-filled rooms. At least, this was the case in laboratories at the University of Arizona where entomologists have been studying their dietary habits.

The aphids lived and bred on plants placed in a series of air conditioned rooms, and all was well.

Then one day an investigator smoked a cigarette in one of the nine-by-twelve-foot labs and aphid nymphs fell from the plants and died. He smoked three more and the adults "fell from the leaves and died on the floor."

The next day the aphid population was split up into ten groups. Six were forced to breathe cigarette smoke —from different brands. All six groups perished. Five minutes worth of cigar smoke was enough to wipe out the seventh infant population; a pipe did the trick for the eighth.

But the last two groups of nymphs, subjected only to the fumes of burning paper and burning wood, lived to replenish the population.

"It is impossible to rear or study aphids in rooms or laboratories where smoking occurs," Drs. Henry W. Kircher and Frank V. Lieberman conclude in a report in the July 1 NATURE.

BOTANY

Hybrid Plant—a Rabbage?

Development of a hybrid vegetable that is a cross between a radish and a cabbage has been claimed by a Russian scientist.

The vegetable, developed by Prof. B. S. Moshchov, head of the Institute of Light Physiology in Leningrad, has leaves like a cabbage and a root like a radish. The whole plant is edible and reportedly rich in vitamin C.

Prof. Moshchov calls it the world's fastest-growing foodstuff, and has taken 20 crops in a year with a total annual weight of about 28.5 pounds per square foot of growing area. By comparison, tomatoes grown under similar conditions have produced an aevrage of 12 ripe fruits per plant in 60 days with a weight output of about 4.75 pounds per square foot.

The new plant is grown entirely under artificial light, with the lamps shining through a filter of running water to cut out heat. A nutrient solution is fed into a gravel base. With proper seed selection, Prof. Moshchov hopes to get up to 24 crops per year.

GENETICS

Saliva: A Tool for Research

Knowledge of human heredity and its role in various disorders could be expanded if the components of saliva were as well identified and grouped as are blood types, Dr. Seymour J. Kreshover, director of the National Institute of Dental Research, Bethesda, Md., says.

Investigators at NIDR recently discovered that a person's ability to taste a bitter, synthetic substance called phenylthiocarbamide is influenced by the composition of his saliva. An estimated 30 percent of all Caucasians cannot taste PTC, dental scientists say. These nontasters are more likely to have goiters and dental caries.

The ability to taste PTC, geneticists discovered, is an inherited dominant trait. Nontasting is recessive. Therefore, they suggest, PTC can be used in heredity studies as a genetic marker. Although tasting PTC offers no inherent advantage, scientists can use the trait to tell whether or not certain genes have been passed on from one person in a family to another.

NIDR scientists suspect there are other identifiable components in saliva that are potentially valuable tools for basic research.

BLOOD STORAGE

Shelf Life Doubles

After 21 days in cold storage, whole blood goes stale, forcing the Red Cross and other blood suppliers to throw away an estimated million pints annually.

But a substance called adenine, widely occurring in animal and plant tissues, appears to double the shelf life of whole blood and improve the quality of stored red cells as well. To find out whether or not adenine is, in fact, the remarkable preservative it seems to be, the National Heart Institute has let ten research contracts worth approximately $700,000.

So far, scientists have a working hypothesis, but no real proof, to explain why adenine preserves whole blood.

At 39 degrees Fahrenheit, blood cell metabolism is significantly slowed but not entirely stopped, and eventually cells deteriorate. However, by adding adenine, scientists provide the cells with a healthy supply of the raw material they use to generate an energy compound called ATP, adenosine triphosphate. ATP is the chemical link between all energy-requiring and energy-yielding reactions at the cellular level. The adenine diet keeps the blood cells active and working under storage conditions, thereby extending their life, the scientists suggest.