

## Marijuana: HEW Reports

The fourth in a series of reports updating the status of knowledge about marijuana has been released by the Department of Health, Education and Welfare. Discussing the report, Robert DuPont of the National Institute on Drug Abuse said, "A definitive evaluation of marijuana's harmfulness or safety for humans cannot be offered at this time on the basis of scientific evidence available." The report does point out, however, three areas in which the health consequences of marijuana use are potentially quite harmful. Preliminary studies, for instance, have suggested that marijuana use might interfere with and weaken the body's immune mechanisms. In another area, researchers have reported that habitual marijuana use seems to lower the body's level of testosterone, the male sex hormone (SN: 5/11/74, p. 305). And finally, the report says there seems to be little doubt that marijuana intoxication interferes with driving skills.

## Marijuana: Conflicting reports

Two of the concerns voiced by the HEW report on marijuana are not backed up by recent studies. Researchers at the University of California in Los Angeles, for instance, report in the Nov. 22 *SCIENCE* that chronic marijuana smoking does not appear to produce an immune defect that can be detected by skin testing. DCNB is an antigen used to test immune responses. It was applied to the skin of 22 healthy marijuana smokers. The subjects had regularly smoked marijuana a minimum of three times a week for at least six months. All 22 of the subjects showed the ability to respond to DCNB, and the researchers say there is no evidence to suggest that marijuana users might be more prone to the development of infectious processes.

In another recent study, testosterone levels were not found to be significantly altered by marijuana use. The research was conducted at the Harvard Medical School—McLean Hospital in Belmont, Mass. Testosterone levels were monitored in 42 long-time (from three to eight years) marijuana users. Initial measurements showed that all subjects had near normal testosterone levels. Measurements were taken during a 5-day nonsmoking period, a 21-day smoking period and another 5-day nonsmoking period. Some users smoked more than 120 joints during the smoking period. The researchers report in the Nov. 14 *NEW ENGLAND JOURNAL OF MEDICINE* that even "high-dosage marijuana intake was not associated with suppression of testosterone levels when multiple plasma samples were obtained before, during and after a 21-day smoking period."

## Marijuana: Changing legal status

Shortly before the equivocal HEW marijuana report was released, Robert DuPont—the Administration's top drug abuse official—suggested in a speech that it might be time to eliminate criminal penalties for the possession of small amounts of marijuana. Almost immediately, U.S. Attorney Earl J. Silbert told the District of Columbia police that his office would no longer file court charges against persons arrested for possession of five or fewer joints of marijuana or up to one gram of the drug in any other form. The decision to relax restrictions in the District of Columbia, said Silbert, will allow police to concentrate on more serious and violent crimes. After a three-week controversy, Silbert withdrew his plan, but it appears that attitudes toward the possession of marijuana may be changing.

## Supercooling dogs

Twelve dogs have been brought back to life with no signs of permanent damage after being clinically dead for two hours. In a paper prepared for the journal *CRYOBIOLOGY*, Emory University physiologist Vojin Popovic tells how the dogs were slowly cooled to 40 degrees F. so that all detectable heart and brain activity stopped, and successfully revived two hours later—a new record.

Many of the techniques used in the experiment have been developed after study of hibernating animals; both the blood and the body surface of the animals were cooled. Popovic says such research may some day allow surgeons to operate on patients for hours without fear that lack of circulation would do crippling damage, and that space travelers may also be kept in suspended animation for long voyages.

## Foster falcons

The Cornell University project to help reestablish America's falcon population (SN: 9/8/73, p. 158) has reached a new milestone: introduction of immature birds into the nests of "foster parents" in the wild. The event is described in the September *NEWSLETTER* of the Cornell University Laboratory of Ornithology.

The experiment began last summer with an attempt to place prairie falcon chicks in existing nests in Colorado and New Mexico. Then, by accident, one of the experimenters found a nesting pair of peregrines that had just lost their second set of eggs due to shell thinning (usually associated with DDT). To keep the pair occupied, a prairie falcon chick was placed in the nest while another researcher left Cornell carrying two peregrine chicks in his arms for a long plane ride west. Finally the peregrine chicks were placed in the nest and the prairie falcon chick was taken to foster parents of its own species.

By summer's end, all 14 chicks of the two species that had thus been introduced into nature were known to have fledged. The report concludes: "The first experimental introduction of captive produced peregrine falcons [has] been accomplished without a problem, thus completing the trial of a simple but effective technique that paves the way for future releases under these most natural of conditions."

## New 'biosphere reserves'

The United Nations Educational Scientific and Cultural Organization (UNESCO) has announced the formation of the first "biosphere reserves" as a part of its "Man and the Biosphere" program—following agreement between the United States and the Soviet Union that each would set aside areas for such reserves.

The new reserves differ from existing national parks and wilderness areas in that their aim is not so much to protect a few specific species but to provide a laboratory in which natural evolution can be observed and the effects of man carefully monitored. This requires an area large enough to contain sufficient numbers of interacting species that the required genetic variability for evolution is present.

In general, the reserves will be protected from interference by man—to preserve the whole ecosystem—but in specific areas, the environment will be subjected to controlled damage (by fire, clearcutting and overfertilizing) to assess the effects of such common human activities. Such down-to-earth economic factors as the effect of population growth and careless use of technology will also be assessed.