

CHEMISTRY

Cold Yeasts Give Lower Melting Point Fats

► YEASTS that grow in cold temperatures tend to produce fats that melt at a lower temperature than those grown at normal room temperature, M. Kates and R. M. Baxter of the National Research Council, Ottawa, reported to the Chemical Institute of Canada in Montreal.

Since the low melting point fats are more unsaturated, they are believed to be less favorable to cholesterol formation in the blood which is involved in arteriosclerosis or hardening of the arteries.

Where essential oils such as perfumes originate can be told by chemical analysis, Leo Levi of the Canadian Food and Drug Directorate, Ottawa, told the meeting. Determination of source, botanically and geographically, of essential oil bearing plants plays a role in quality.

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GENERAL SCIENCE

Scholarships for Science Writing Advocated

► SCHOLARSHIPS for journalism graduates and working newspaper writers to enable them to learn more science were one of the principal recommendations announced by SCIENCE SERVICE as the result of a conference of journalism school deans and representative scientists, editors and science writers.

"On the job" training for reporters assigned to cover science was also advocated. Journalism schools were urged to extend their resources through seminars, conferences and informal contacts with science writers.

The conference also expressed interest in development of testing programs for identifying those who are capable of becoming science writers. For promoting the interest of those who will become science writers in the future, it was recommended that opportunities in science writing be brought to the attention of high school students.

All the nation's schools of journalism reporting major attention to science writing were invited to this conference on the "Role of Schools of Journalism in the Professional Training of Science Writers." The conference was conducted June 9 and 10 under a National Science Foundation grant by SCIENCE SERVICE.

At the suggestion of the conference, the report of the conference is being circulated to schools and departments of journalism of American and Canadian colleges.

The journalism representatives went on record as being opposed to the formulation of arbitrary curricula in education for science writing, since individual programs should depend upon the individual's special talents.

The conference favored the continued support of conferences that bring editors of newspapers, scientists, and science writers together to discuss problems and ideas about the coverage of science for newspapers.

Lists of books and other source material for use by science writers for background should be compiled and circulated, the conference suggested.

A limited number of copies of the full report are available to those especially interested from SCIENCE SERVICE, Washington.

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GEOLOGY

Rare Mineral Solving Origin of Earth's Craters

► A RARE MINERAL is helping to unravel the mysteries surrounding the origin of earth's deep craters.

Coesite has been settling age-old arguments as to whether certain craters formed from volcanic upheavals or from meteorites crashing into the earth. Coesite is a form of quartz whose atoms are rearranged when a meteorite buries itself in the earth.

U. S. Geological Survey scientists in the one year since its discovery have found coesite in craters on four continents, proving the depressions were meteorite-formed. An Asian desert crater, an African lake and a 17-mile-wide German depression contained coesite. The famous Meteor Crater in Arizona, about whose origin there was no doubt, also contains coesite, which occurs as tiny "stringers" in broken quartz grains.

The tremendous pressures generated when huge meteorites smash into the earth's surface transform some of the quartz found in rock to coesite.

The "astrogeologic" unit of the Geological Survey is led by Dr. E. M. Shoemaker, and is partly supported by the National Aeronautics and Space Administration. The Survey scientists hope the work will eventually lead to the exact identification of supposed meteorite craters on the moon.

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GENERAL SCIENCE

Large Colleges Hold 40% Of Total Science Faculty

► SCIENCE AND ENGINEERING teachers at U. S. colleges and universities tend to be highly concentrated in a relatively small number of institutions with large enrollments, a National Science Foundation study shows.

The Foundation survey covered 1,916 institutions. Only 67 of these, all with enrollments of 10,000 or more, employed almost 40% of the 100,000 science and engineering faculty members reported for all the schools. Fifteen schools with enrollments of 20,000 or more employed 17.7% of the 100,000 total.

The concentration was even more sharply pronounced for the 57,000 listed as non-faculty science and engineering personnel, principally research workers. The 15 largest institutions employed 32%, while the 52 schools in the 10,000-to-20,000 enrollment class employed 26.4%.

The 157,000 scientists and engineers working for colleges and universities made up about half of the 311,000 total for professional personnel.

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ECONOMICS

Soviets Get Big Returns From Small Asian Outlay

► IN GIVING AID to Asia's underdeveloped countries, Soviet Russia has gotten maximum effects from a minimum investment by backing projects with high propaganda value within a few key countries.

Actually, the total extent of this aid has not been "overwhelmingly large," Stefan C. Stolte points out in the Bulletin of the Institute for the Study of the USSR, published in Munich.

From 1954 to 1960, the Soviets claim, they gave about \$1.5 billion in long-term credits to six non-Communist Asian countries. More than half of this went to India. From 1955 to 1960, the United States gave more than \$2.7 billion in aid to Asia's non-Communist countries.

The Soviets have concentrated on industrial projects, such as the steel works at Bhilai in India, to win the help of important political and economic groups believing that rapid industrialization is a "must" for an underdeveloped country.

Other Soviet aid has gone to Indonesia, Iraq, Afghanistan, Ceylon and Yemen. Afghanistan is the only one that "shows any serious likelihood of becoming a satellite of Moscow," Mr. Stolte believes.

India, despite its officially neutral stand, "is the only opponent to Communism that is of decisive importance in Asia," he asserts. India alone has some 357,000,000 people, compared to the 283,000,000 who live in the ten Asian countries now belonging to pro-Western military alliances, and the 100,000,000 in four countries now on friendly terms with the Eastern bloc.

In May, India began her third five-year expansion plan, budgeted at about \$14 billion. The Western powers have offered to contribute \$2.5 billion of this in long-term credits. This is more than all the Soviet economic aid given in non-Communist Asia to date.

In its economic build-up, India may be ahead of Communist China in per capita output of electricity, cement and cotton fabrics, but is behind in coal and steel, statistics from Communist sources indicate.

Overall, Asia's non-Communist areas are "tempting prey" to the Communists because they are militarily weak, have such large populations that they can shift the balance of world political power, and offer great possibilities for production of trade goods, Mr. Stolte said. They are already important as sources of rubber, tin, oil, rice and tea.

The main problem of underdeveloped countries, however, is disposing of their raw materials, and Mr. Stolte predicts they will get little help from the Eastern bloc for some time. The East is trying to get away from reliance on imported raw materials. The West, on the other hand, is steadily increasing its import program.

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Super sensitive *films* have opened the door to almost universal use of photographic instrumentation for intricate research under difficult conditions.