

AGRICULTURE

New Tomato Variety

Specially bred for growing in lowland tropics, hybrid is now being supplied to Americans at tropical bases. Has been named "Turrialba."

► A NEW TOMATO variety, specially bred at the Inter-American Institute of Agricultural Sciences in Costa Rica, to produce well in the warm lowlands of the tropic zone, is now being used to supply American armed forces still on duty at overseas bases to the south, Joseph L. Fennell, chief of the division of food crops at the Institute, reports. (*Agriculture in the Americas*, Dec.) The new variety has been named "Turrialba", for the majestic volcano that dominates the terrain where the Institute is situated.

Breeding tomatoes for use in the tropics might seem a bit like carrying coals to Newcastle, for the tomato species is native to the warmer parts of the Americas. However, in its native form the fruit is a miniature, cherry-sized af-

fair—being commonly known, indeed, as the cherry tomato. All the big, firm-fleshed varieties have been bred for temperate-zone conditions, and extensive tests showed that none of these would do well in tropical climates.

A hybrid between one of the most southerly of temperate-zone tomatoes, known as Cuban Marglobe, with one of the larger-fruited strains of cherry tomato was therefore undertaken. The third generation of offspring, only 16 months from the original cross, proved good enough to be used for large-scale growing. Even of the first-generation cross, about 400 crates of the fruit have been purchased and distributed to American bases in the tropics.

The Turrialba tomato looks rather like its Marglobe parent, although it is a little flatter in shape. It produces large, firm-fleshed, smooth-skinned fruit, bright red throughout. Both plants and fruits are reported to have satisfactory resistance to plant diseases.

The plant breeders who produced the new variety are not yet well enough satisfied with it to offer seed for general planting. It is still so close to the original cross that undesirable traits of various kinds keep cropping up, which must be eliminated before it can be counted a full commercial success. Satisfactory stabilization of the variety's genetic characters should be accomplished within a relatively few plant generations.

Science News Letter, January 26, 1946

SEISMOLOGY

Earthquake Forecasting Lacks Scientific Basis

► EARTHQUAKE forecasts, though often made and as often accepted by the unwary, still have no scientific basis, declared Dr. James B. Macelwane, dean of the Institute of Geophysical Technology at St. Louis University.

"From time to time articles have appeared in the newspapers about men who claimed to have arrived at a complete solution of the problem of earthquake forecasting. They give you long lists of supposed verifications to prove the success of their predictions.

"Some forecasters base their predictions on the influence of the moon, others on the relative position of certain planets, others on sunspot activity, and no doubt there are persons entirely sincere who are allured and deceived by a specious theory and by a series of apparent verifications, but who lack sufficient scientific background to make a critical appraisal of the factors involved."

Highly generalized predictions for general regions where earthquakes are frequent cannot be considered real predictions, Dr. Macelwane pointed out. For example, to say that an earthquake will occur in Japan next week is a perfectly safe guess to make, for Japan averages about two dozen quakes every week; but such a statement has no value as a forecast.

To be really useful, the speaker insisted, an earthquake forecast must be specific, giving time, place and intensity; it must also be reliable enough to justify public authorities in preparing for the predicted disaster.

Seismologists have hopefully followed such leads as the claimed "bunching" of earthquakes in cycles, and their supposed association with earth creep and earth tilt, but none of these efforts has paid out with really reliable results.

Dr. Macelwane's talk was delivered during the intermission period in a concert of the New York Philharmonic-Symphony Orchestra. It was broadcast over the network of the Columbia Broadcasting System, under the auspices of the United States Rubber Company.

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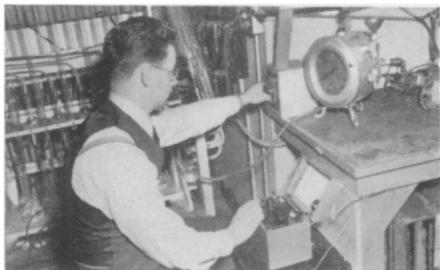
CHEMISTRY

Seaweed Product Used In Waterproofing

► NEGLECTED and largely wasted resource, the giant seaweeds of the Pacific coast, supplies material for an improved bitumen waterproofing material, in the formula on which patent 2,393,022 was issued to three San Diego inventors, D. E. Clark, A. B. Steiner and K. F. Gibsen, assignors to the Kelco Company. In it, a salt of alginic acid (the seaweed product) is combined with asphalt, water and a copper-ammonium complex to form a solid, tough, non-tacky compound that is stable over a wide range of temperatures.

Science News Letter, January 26, 1946

The typhus epidemic of Naples in 1943 was the first to be stopped in winter; this was due to the use of DDT.



HANDY EQUIPMENT FOR TEMPERATURE CHECKS

Measuring the temperature of a leaf surface, to determine the effect of insect feeding and of spray materials, is typical of hundreds of measuring and checking studies made at Ohio State University, for which equipment like that shown above is being used. This type of equipment is preferred where the temperature to be measured is that of a point or spot accessible to the tip of a fine-wire thermocouple.

Instrument shown measuring the emf of such a couple is a Portable Millivolt Indicator No. 8657-C, which has ranges 0-16 and 16-64 mv, and thus accommodates any couple across its entire range with good sensitivity and accuracy. Its price is \$145.00, complete with galvanometer, standard cell and battery.

If you will outline your temperature-measuring problem, we will be glad to recommend a suitable equipment.

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