



WAY TO KEEP COOL—Two-year-old Katie Swenson, one of the thousands of children visiting the Minnesota state fair at St. Paul, proved the best way to keep cool under 95 degree temperatures is to eat snow cones. Katie cooled off, at least temporarily, but couldn't quite make it through the second cone. (UPI Telephoto)

Churning Sand in Surf Big Headache For Seaside Areas

New York, N. Y. — (Scientific American Feature) — The seemingly random churning of sand in the surf has grown into a multi-million dollar headache for many seaside communities and currently poses a stubborn problem for oceanographers and engineers according to Willard Bascom, technical director of the Mole project.

Beach sand tends to drift parallel to the shoreline in many localities, denuding favorite playgrounds in some areas and plugging harbors in others. What is the mechanism of the drift and how can it be controlled?

Preliminary studies have now shown that the primary source of the movement is slow currents of water that parallel the shore, according to Dr. Bascom. These may work the observed damage, even though proceeding at a snail's pace. A grain of sand stirred up by waves may settle ever so closely to its original position but if it consistently comes to rest downstream after each disturbance, an enormous tonnage of sand will have drifted by the end of a year.

Sand Dumped in Harbor

"Sand so transported from the region of Point Conception, Calif., eventually reaches Santa Monica," says Dr. Bascom. "On an average day about 800 cubic yards are dumped into the harbor and under storm conditions four times that amount will arrive. A similar current operates along the southern shore of Long Island on the East coast. Prevailing winds and the waves of the North Atlantic sweep the sand along the shore from Montauk Point at the island's eastern tip to the Rockaway spit at the entrance of New York harbor. Montauk is rapidly eroding and the Rockaway spit is building at the rate of 200 feet per year.

"Along some coasts a series of parallel rock walls, called 'groins,' have been extended out into the sea at regular intervals for many miles. These are intended to arrest the coastwise drift of sand. They give the beach a cusped appearance. But the sand still flows.

"Currently the preferred method of control is the more effective though less costly 'beach-nourishment' program. New sand is supplied to the beach system from inland dunes or from the bottoms of nearby lagoons. For example, the famous Waikiki Beach in the Hawaiian Islands was recently rebuilt with sand that was trucked in from dunes 14 miles away.

Results Unsatisfactory

"On the New Jersey coast the action of the currents is such that sand is moved away from Barnegat Inlet. In the past 50 years nearly \$50 million has been spent on shore works in an attempt to stabilize the shore line. The present annual rate of expenditure is more than \$2 million, and the results are not satisfactory. Some parts of the shore have long since been stripped of sand; others are still retreating. A current proposal would supply new sand to beaches in the vicinity of Barnegat Inlet. The sand

would come partly by truck from inland locations and partly by pumping from Barnegat Bay; wave action and coastwise currents would be relied upon to distribute it along the coast. The initial investment would be \$28 million, but the program would require less than \$1 million per year to maintain the beaches thereafter.

"Sixty-six other shore-line construction projects, costing a total of over \$100 million, have been planned for the shores of the U. S., and about half are completed or are well under way. In these enterprises the knowledge gained by the scientific study of beaches will play a central role."

Several Problems Seen With Live Polio Vaccine

New York — (Science Service) — Before the Sabin oral polio vaccine is used in this country, several problems should be resolved, the National Foundation indicated in calling a special meeting of its Advisory Committee on Virus Vaccines.

The Foundation's March of Dimes program has long helped battle polio. Its funds paid for the development of the earlier Salk vaccine and now the new Sabin vaccine. The Sabin vaccine was named by the U. S. Public Health Service on Aug. 24 as the live-virus polio preventive suitable for government license.

The Foundation committee will meet here soon to discuss viremia—the presence of polio virus in the blood — after administration of the Sabin vaccine. Some of the strains in live virus vaccines have been found to use this condition on a casual.

Further Evidence Needed

With viremia the likelihood of the vaccine affecting the central nervous system is greater, Dr. Thomas M. Rivers, the Foundation's vice president for medical affairs, has indicated there is need for further evidence on the subject.

The Foundation is also sponsoring further research on the problem of reversion, or the extent to which weakened vaccine viruses regain some of their original strength after passing from vaccinated to unvaccinated persons.

The Foundation's recommendations may affect the Public Health Service's writing of rules to govern use of the new vaccine. The vaccine was developed by Dr. Albert B. Sabin of the University of Cincinnati. Four drug companies are preparing to bring it to market by the middle of 1961.

WARN YANK TRAVELERS

Washington — (AP) — The State Department has warned American travelers in the Dominican Republic that they are no longer under diplomatic protection there. The United States broke diplomatic relations with the Dominican Republic on Aug. 26.

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Hunt's Fruit Cocktail — 8-oz. Can	2/31	170	329	.43
Hunt's Sliced Peaches — 8-oz. Can	2/31	165	319	.53
Del Monte Sliced Peaches — 8-oz. Can	2/33	175	335	.61
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Hunt's Chili Beans	No. 300 Can	2/31c	1.65	3.19 .53
Hunt's Chili Beans	No. 2 1/2 Can	27c	2.90	5.69 .79
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Diamond A Cut Green Beans	No. 303 Can	20c	2.33	4.55 .25
Diamond A Sliced Green Beans	No. 303 Can	23c	2.55	4.98 .50
Diamond A Diced Beets	No. 303 Can	2/29c	1.50	2.95 .53
Diamond A Sliced Beets	No. 303 Can	2/35c	1.90	3.65 .55
3 Sisters Sliced Beets	No. 303 Can	2/29c	1.50	2.95 .53
Kounty Kist Cream Style Corn	No. 303 Can	2/31c	1.70	3.25 .47
Diamond A Cream Style Corn	No. 303 Can	2/35c	1.95	3.79 .41
Diamond A Whole Kernel Corn	No. 303 Can	2/35c	1.95	3.79 .41
3 Sisters Whole Kernel Corn	No. 303 Can	17c	1.80	3.49 .59
Del Monte Peas	No. 303 Can	22c	2.45	4.79 .49
Del Monte Sauerkraut	No. 303 Can	19c	2.05	3.98 .58
Del Monte Spinach	No. 303 Can	2/33c	1.70	3.39 .57
Hunt's Stewed Tomatoes	No. 300 Can	2/39c	2.15	4.25 .43
Hunt's New Potatoes	No. 300 Can	2/27c	1.35	2.59 .65
Tastewell Standard Tomatoes	No. 303 Can	2/35c	1.80	3.69 .51

CANNED FRUITS

North Coast Applesauce	No. 303 Can	17c	1.55	3.49 .57
Del Monte Halves Apricots	No. 303 Can	29c	3.15	6.19 .77
Hunt's Whole Apricots	No. 2 1/2 Can	31c	3.25	6.39 1.05
Diamond A Pie Cherries	No. 303 Can	25c	2.65	5.19 .81
Del Monte Fruit Cocktail	No. 303 Can	27c	2.80	5.49 .99
Hunt's Fruit Cocktail	No. 300 Can	25c	2.50	4.98 1.02
Del Monte Grapefruit Sections	No. 303 Can	27c	2.85	5.59 .89
Sunpakt Mandarin Oranges	11-oz. Can	25c	2.45	4.79 1.21
Hunt's Cling Peaches (Halves or Sliced)	No. 2 1/2 Can	30c	2.95	5.89 1.31
Del Rogue Freestone Peaches	No. 2 1/2 Can	3/1.00	3.75	7.35 .65
Del Rogue Freestone Peaches	No. 303 Can	23c	2.50	4.89 .63
Del Rogue Bartlett Pears	No. 303 Can	27c	2.95	5.79 .69
Siskiyow Bartlett Pears (Light Syrup)	No. 303 Can	21c	2.40	4.49 .55
Del Monte Sliced Pineapple	No. 1 1/4 Can	25c	2.80	5.49 .51

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Hunt's Tomato Juice	32-oz. Can 23c	2.29 .47
V-8 Vegetable Juice	46-oz. Can 41c	4.59 .33
Tree Top Apple Juice	46-oz. Can 43c	4.69 .47
Del Monte Prune Juice	Qt. Bottle 49c	5.49 .39
Dole Pineapple Juice	46-oz. Can 3/1.00	3.49 .51
Honolulu Lady Pineapple Juice	46-oz. Can 3/89c	2.98 .58
Del Monte Grapefruit Juice	46-oz. Can 41c	4.25 .67
Del Monte Orange Juice	46-oz. Can 49c	5.39 .49