

Vermont, Virginia, West Virginia and Wisconsin.

The Annual Science Talent Search is conducted by Science Clubs of America, administered by SCIENCE SERVICE. Scholarships are provided and the Science Talent Search made financially possible by the Westinghouse Educational Foundation, an organization endowed by the Westinghouse Electric Corporation, for the purpose of promoting education and science.

Science Clubs of America, administered by SCIENCE SERVICE, is the international organization for science groups, in schools and out. Today more than 15,000 clubs are affiliated here and abroad, with a membership of more than one-third of a million young people. All are encouraged to participate in the Search and the National Science Fair.

Complete details of the National and the 27 State Science Talent Searches are available from Science Clubs of America, 1719 N St., N.W., Washington 6, D. C.

Science News Letter, January 29, 1955

NUTRITION

Instant Citrus Juice Made From Crystals

► HOUSEWIVES SOMETIME this year will be able to buy "instant" orange and grapefruit juice as well as the canned, frozen concentrate and fresh fruit for home squeezing.

The "instant" juice, cans of crystals that dissolve quickly in cold water, was developed by its manufacturers, Orange Crystals, Inc., of Plant City, Fla.

In color, flavor and aroma, the "instant" juice would be hard to tell from freshly squeezed citrus juice. And tests by the U. S. Department of Agriculture and the Quartermaster Corps showed that the "instant" juice could be stored for six months at 100 degrees Fahrenheit without losing flavor or vitamin value.

Secret of the process seems to lie in a vacuum-drying controlled heat process plus two chemicals. One chemical is a sugary substance called sorbitol which is used to "entrap" the essential oils and esters that carry the citrus fruit flavor and fragrance. The other is a drying chemical in a small envelope inside each can of crystals.

In-package desiccation, or drying, using lime for the moisture-absorbing substance was announced in 1945 by Dr. L. B. Howard, formerly with the Department of Agriculture, now at the University of Illinois.

Department of Agriculture scientists as well as scientists in private industry and at the Massachusetts Institute of Technology, Cambridge, Mass., worked during World War II to try to develop citrus fruit crystals or powder that would keep under all climatic conditions, and be saving of shipping space and weight. Although the "instant" citrus juices also save weight and space and have good keeping quality without refrigeration, they are a far cry from the lemon powder used in World War II.

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GENERAL SCIENCE

STS Winners Selected

* Indicates girls

H. S. indicates High School

CALIFORNIA

Claremont
Del Paso Heights
San Francisco

Fleishhacker, David 17 Webb School of California
Havey, James Halbert Jr. 17 Grant Union H. S.
Briggs, Thomas Stafford 16 Abraham Lincoln H. S.

COLORADO

Denver

Aandahl, Vaughan Allan 17 East H. S.

CONNECTICUT

Bridgeport
Fairfield

*Hartley, Alice Katherine 17 Bassick H. S.
Buccino, Robert Anthony 17 Fairfield College Preparatory
Foster, Edward John 16 Fairfield College Preparatory

ILLINOIS

Evanston

Reed, Jack Donald 16 Evanston Township H. S.
Sommerfield, Martin David 17 Evanston Township H. S.
*Tate, Patricia Ann 17 Greenville H. S.
Potter, James Emerson 17 West Rockford Senior H. S.
Webb, Stephen Richard 16 University H. S.

Greenville
Rockford
Urbana

INDIANA

South Bend

Fassnacht, Robert Earl 18 Central Junior-Senior H. S.

KANSAS

Kansas City

Wilson, Daniel Hughes 17 Sumner H. S.

MASSACHUSETTS

Newtonville

Kalnajs, Agris Janis 17 Newton H. S.

MISSISSIPPI

Jackson
University

Penney, David Emory 17 Central H. S.
MacDonald, John Lauchlin 16 University H. S.

NEBRASKA

Omaha

*Tollman, Janet 17 Benson H. S.

NEW JERSEY

Audubon
Princeton
Trenton

Eichman, Charles Jetter 17 Audubon H. S.
Nergaard, David Karl 18 Princeton H. S.
Webster, Norman Adelbert III 17 Trenton Central H. S.

NEW YORK

Brooklyn

*Harman, Mary Ella 16 Erasmus Hall H. S.
Levine, Stephen Samuel 17 Erasmus Hall H. S.
Bachrach, David 16 James Madison H. S.
Rosen, Michael Ira 16 Midwood H. S.
*Myers, Carol Elnora 16 Canastota Central H. S.
*Fishman, Roberta Jane 16 Forest Hills H. S.
Fried, Michael Martin 15 Forest Hills H. S.
Kripke, Bernard Robert 15 New Rochelle H. S.
Barth, Rolf Frederick 17 La Salle Academy
Hoffman, Roald 17 Stuyvesant H. S.

Canastota
Forest Hills

New Rochelle
New York

NORTH CAROLINA

Wilmington

Vaughan, Maurice Hamilton Jr. 17 New Hanover H. S.

OHIO

Fremont
Youngstown

Shilling, A. Gary 17 W. W. Ross H. S.
Williams, Lawrence Ernest 17 East H. S.

PENNSYLVANIA

Allentown

Greenleaf, Frederick Paul 17 Allentown H. S.

TENNESSEE

Nashville

Marshall, Winston Stanley 18 Isaac Litton H. S.

WEST VIRGINIA

Charleston
South Charleston

Stone, John William 17 Stonewall Jackson H. S.
*Hawkins, Carol Irene 17 South Charleston H. S.

WISCONSIN

Appleton
Marshfield

Harriman, John Edward 18 Appleton Senior H. S.
*Hable, Kathleen Anne 18 Columbus H. S.