International Fair Opens in San Francisco

Winners from around the world pit their exhibits against each other.

by Patricia McBroom

The 18th International Science Fair draws to San Francisco this week 427 high school scientists from some 46 states, the District of Columbia and eight foreign countries.

They come with the backing of newspapers, magazines, scientists, educators and industry to display projects of amazing sophistication. They are assessed by more judges than the fair has participants—491 scientists and authorities, including three Nobel Laureates.

It is an impressive assembly. Each student is a winner in a regional or national fair back home. Here he comes face to face with the best work of his contemporaries.

Approximately 40 nations now hold fairs, nine of which are represented at this year's international—Canada, Germany, Portugal, Nicaragua, Sweden, Switzerland, Japan, Turkey and the United States.

Broadly speaking, student projects both reflect national culture and indicate the kind of scientific materials a country has readily available.

Thus, Japanese entries are usually botanical or zoological. Eighteen-year-old Jiro Akiyama arrives this year with an ecological study of color variations in the Japanese beetle, Apotomoterus, following a tradition that that has included projects on Easter lilies, insect galls, butterflies and tadpoles. (The boy with the tadpole project built a shrine in his backyard to the souls of the 1,500 young frogs he had to sacrifice.)

Katsura Sumio, however, proves the exception to the rule. His project measures the solubility of gas in water according to Henry's law.

Also breaking the norm is Silvio Joaquin Estrada from Nicaragua. His study illustrates the type of habitation and equipment men would need for life on the moon. Usually, projects dealing with space, rockets, electronics, satellites and such come from the United States or Europe.

Hansruedi Epprecht, from Switzerland's German language fair, for instance, observed satellites for the Smithsonian's Astrophysical Laboratory and wrote a computer program for analyzing data.

And Sweden's Svante Linquist found a way to experimentally test a theory of interstellar polarization.

Model hydroelectric system at Nicaragua's first Science Fair.

One of the most unusual projects is a model of an ideal urban center. Cecile Metzgar-Agustoni from Switzerland's Italian region says she got the idea by viewing traffic congestion and tourist confusion in her resort town.

Similarly, Canada's Guy C. Fedorkow from Niagara-on-the-Lake in Ontario has something appropriate to his backyard—a computerized canal lock.

Entries from the United States span all the sciences, simply by virtue of their numbers. Of the 427 participants this year, 408 are American.

This imbalance has at least two explanations—most fair sponsors find it difficult to finance trips to the U.S. for winners, and second, the U.S. no longer has its own national fair.

For eight of its 18 years, the international fair was, in fact, the national U.S. science fair. Few other nations had such events.

In 1957, Japan sent its first representative to the U.S. fair and it became international. But until the early 60's Japan and Canada were the only countries to enter participants.

The fair went wholly international when the U.S. Atomic Energy Commission and Science Service, fair administrator, joined forces—the AEC to show its Atoms in Action exhibit around the world and Science Service to stimulate high-school fairs. In five years, fairs have cropped up in 10 Latin American countries, plus Spain, Portugal, Iran and Turkey. In Turkey and Nicaragua—the single Latin American nation to attend this year's event—fairs started only this year.

In Germany, the science fair took strong hold. Backed by the magazine DER STERN, German fairs last year sent their first representative to the International. One of the entries won third prize—a rare occurrence for a new nation. Normally students are unprepared the first year for the quality of competition they meet.