There is one outstanding model, however, which dominates the scene and has served as the focus of the California brouhaha. It is the technology of mechanized tomato picking, developed over a 10-year period by researchers at UC-Davis and adopted on a large scale by California growers in the 1960's. It is agreed that this innovation increased tomato production in the state (by about 50 percent), favored large farmers over small, and reduced the number of jobs for farm laborers (the number of tomato workers declined from about 50,000 in 1964 to

NAS Elects New Members

The National Academy of Sciences elected 59 new members during its 117th annual meeting, bringing the total membership to 1324 men and women. Newly elected members (with their affiliations at the time of nominations) are:

Kinsey A. Anderson, University of California, Berkeley; Francisco J. Ayala, University of California, Davis; Paul T. Baker, Pennsylvania State University, University Park; Robert L. Baldwin, Stanford University School of Medicine; Harlan P. Banks, Cornell University; Helmut Beinert, University of Wisconsin, Madison; Abram Bergson, Harvard University; O. Brent Berlin, University of California, Berkeley.

R. Stephen Berry, University of Chicago; J. Michael Bishop, University of California Medical Center, San Francisco; Peter M. Blau, Columbia University; Richard G. Brewer, IBM Research Laboratory, San Jose; William Browder, Princeton University; Michael S. Brown, University of Texas Southwestern Medical School, Dallas; William L. Brown, Pioneer Hi-Bred International, Inc., Des Moines.

Angus A. Campbell, University of Michigan, Ann Arbor; Herman Chernoff, Massachusetts Institute of Technology; George W. Clark, Massachusetts Institute of Technology; Marvin L. Cohen, University of California, Berkeley; Stanley Cohen, Vanderbilt University School of Medicine; Robert G. Coleman, U.S. Geological Survey, Menlo Park; Sidney R. Coleman, Harvard University; Earl W. Davie, University of Washington School of Medicine, Seattle.

Mostafa A. El-Sayed, University of California, Los Angeles; Richard K. Gerson, Yale University School of Medicine; Eloise R. Giblett, University of Washington, Seattle; Edward D. Goldberg, Scripps Institution of Oceanography, La Jolla; Avram Goldstein, Stanford University Medical Center; Joseph L. Goldstein, University of Texas Southwestern Medical School, Dallas; Melvin M. Green, University of California, Davis; Cyril M. Harris, Columbia University; Donald R. Helinski, University of California, San Diego; Julian Hochberg, Columbia University.

Andre T. Jagendorf, Cornell University; Richard M. Karp, University of California, Berkeley; Frederick Kaufman, University of Pittsburgh; Martin D. Kruskal, Princeton University; John I. Lacey, Fels Research Institute, Yellow Springs; Joel L. Lebowitz, Rutgers University; Heinz A. Lowenstam, California Institute of Technology; Theodore H. Maiman, TRW Electronics, Los Angeles; Henry P. McKean, New York University; Robert N. Noyce, Intel Corporation, Santa Clara; Everett C. Olson, University of California, Los Angeles.

Charles R. Park, Vanderbilt University School of Medicine; Joseph E. Rall, National Institute of Arthritis, Metabolism, and Digestive Diseases, National Institutes of Health; Frederick Reines, University of California, Irvine; Charles Sawyer, University of California, Los Angeles; Luis Sequeira, University of Wisconsin, Madison; James B. Serrin, University of Minnesota, Minneapolis; Eugene M. Shoemaker, California Institute of Technology; G. William Skinner, Stanford University.

Hamilton O. Smith, Johns Hopkins University School of Medicine; Solomon H. Snyder, Johns Hopkins University School of Medicine; Louis Sokoloff, National Institute of Mental Health, National Institutes of Health; Barry M. Trost, University of Wisconsin, Madison; Peter K. Vogt, University of Southern California School of Medicine; Robert H. Wasserman, Cornell University; Howard E. Zimmerman, University of Wisconsin, Madison.

In addition, the Academy elected 12 foreign associates:

Ignacio Bernal y Garcia Pimentel, National University of Mexico, Mexico; Jacques-Emile Blamont, Centre National de la Recherche Scientifique, France; John G. Bolton, Commonwealth Scientific and Industrial Research Organization, Australia; Paul Erdos, Hungarian Academy of Sciences, Hungary; Roger Gautheret, L'Institut de France, France; John B. Gordon. Laboratory for Molecular Biology, United Kingdom; Jean-Marie Pierre Lehn, Universite Louis Pasteur, France; Peter Reichard, Medical Nobel Institute, Sweden; Hans H. Ussing, University of Copenhagen, Denmark: Leon Van Hove, European Organization for Nuclear Research, Switzerland; Torsten N. Wiesel (Sweden), Harvard Medical School; Maurice V Wilkes, University of Cambridge, United Kingdom.

18,000 in 1972). The price of processed tomatoes rose during this period for a variety of reasons. What is not agreed is whether these changes were beneficial or harmful.

Al Meyerhoff, an attorney at the California Rural Legal Assistance (CRLA) project, argues that high-technology agriculture of this kind is closing down jobs and driving small farmers off the land. A way of life is being destroyed, Meyerhoff says, and the bounty produced in this revolution is being distributed not so much to consumers as to the increasingly concentrated farm industry, in profits.

The CRLA has sued the University of California to prevent tax dollars from being used to support research which allegedly benefits private rather than public interests. It is too late to stop the tomato picker. And researchers at a USDA laboratory and at UC-Davis have already developed a prototype lettuce picker. But the CRLA would like to stall work on melon harvesters, grape tending and harvesting machines, citrus fruit tree shakers, and other mechanical devices still in development.

The CRLA suit attacking this research was trimmed in scope recently by the superior court judge in Alameda County trying the case. He declined to rule on the broad question of whether or not this kind of research benefits the public. But he agreed to rule on some narrower points, including (i) charges that university officials with holdings in agribusiness firms have a conflict of interest, (ii) a charge that cooperative extension offices are being used as research rather than education centers, in contravention of federal law, and (iii) charges that private industry exerts an unhealthy influence over the university's research priorities.

The USDA is just beginning to examine some of the social conflicts created by high-technology farming, and it is not at all clear how the department will proceed. Will it heed the advice it gets from the new committee on mechanization? At this writing, the committee seems to be dormant. While panel members have been selected, they have not been officially appointed. No funding has been set aside. And it is not known how often the group will meet, if at all. One department official suggested that the panel be convened once, perhaps in midsummer, and then sent home. USDA staffers assigned to the committee are reluctant to say what will happen next.

Thus, while Bergland's policy on mechanization research is still kicking, it seems to have been pushed into the back closet for now.—ELIOT MARSHALL