EUGENE P. ODUM, MEREDITH RUNNER, HOWARD A. EDWARD S. DEEVEY, PHILIP GRANT, A. C. LEOPOLD, J. B. HALDANE OF ENGLAND, AND S. Wright of the United States, and S. Chetverikov of the USSR produced elaborate models of gene effects, selection, and environmental action. They and other scientists, including agricultural geneticists J. L. Lush of Iowa and I. M. Lerner of California, have applied these models to produce successful techniques of crop management and animal husbandry used by thousands of farmers and ranchers throughout the world. These studies have contributed to the recovery of vast bowl lands of the 1930’s and helped produce the food for the armies of World War II and the crop surpluses which softened the world food shortages in the 50’s and 60’s. The latest successes of applied evolutionary theory include the development of special genetic varieties of grains which greatly improve yields on marginal and overused agricultural lands.

As in other major scientific advances, the fruits of evolutionary science are far-reaching (e.g., extensive medical and public health programs), and the errors of application often yield terrifying results (e.g., the development of insecticide-resistant pests and pharmaceutical-resistant diseases). Misuse of the theory has contributed to social and political problems. Thus, T. D. Lysenko, an inadequately trained scientist but master Soviet bureaucrat, achieved political leadership of the agricultural program and overemphasized the utilization of environmental variability in determining the yield of crops. The scientific incompetence of his methods was obscured by war and by his friendship with Stalin. Yet eventually, successive failures of agricultural 5-year plans contributed to the loss of power by Khruschev.

The California decision may have far-reaching effects. The establishment of law and of science by administrative decision attempts to circumvent the constitutional issue. Those whose religion is not based on the fundamentalist interpretation of the Bible and especially those whose religion is not based on the Bible and those who believe religion is not for public display are forced to have their children subjected to religious doctrine presented as scientific theory. The administrative decree requires all California textbooks to conform to the adopted framework. Since California buys 10% of all text, publishers either must provide special editions or distribute the California edition throughout the nation. The latter course has been used in the past. Science in California is taught at all grade levels and frequently integrated into social studies, literature, and art. Thus by politically motivated administrative decree, the activity of every teacher in the nation is directly or indirectly affected. The Supreme Court has insisted that it has the power to guard against “arbitrary restrictions upon the freedom of teachers to teach and of students to learn.”

As the world approaches the crises of overpopulation, environmental deterioration, and political instability, we can ill afford additional scientific, educational, and political obfuscation by the forces of darkness and ignorance.

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