an independent National Education Standards Board.

According to a press release: "Students would be able to accomplish tasks set by the assessment process over time much as scouts accumulate merit badges." Local assessment instruments would not be thrown out, but would be calibrated to the national standards.

The 18-month development stage is being funded by $2.45 million from the MacArthur Foundation and the Pew Charitable Trusts. Pilot testing of what organizers envisage as a 10-year effort will begin next year.

Final Word on Agent Orange?

Key members of Congress have reached agreement on the nagging quandary concerning Agent Orange—namely, should the government provide compensation to servicemen who were exposed to the defoliant during the Vietnam War? Their answer: if the National Academy of Sciences says so.

Representatives Lane Evans (D–IL) and G. V. (Sonny) Montgomery (D–MS), long at odds over this issue, agreed 2 weeks ago on a bill under which the NAS will review all the available evidence on health risks and recommend to the Department of Veterans Affairs (VA) whether any more diseases should be linked to Agent Orange. (The VA has already granted such recognition to a severe skin condition and two rare cancers.) The VA is required to accept the recommendations or explain why it won't within 60 days.

The scientific arguments over Agent Orange seemed closed in 1987, when the Centers for Disease Control said troop records were inadequate to determine what ailments might be linked to exposure. But last year, a congressional committee accused the Reagan Administration of mounting a cover-up to avoid potentially massive disability payments (*Science*, 31 August 1990, p. 982).

The latest move may place the academy in the position of writing the closing chapter in the Agent Orange story. A panel of the Institute of Medicine, its sister organization, unofficially endorsed the CDC's decision when it cancelled its Agent Orange study. And a recent study in *The New England Journal of Medicine* suggests that the health risks associated with dioxin—an active ingredient in Agent Orange—are much lower than previously thought.

New Audit at Stanford

Stanford University, under siege for its indirect cost accounting practices (*Science*, 21 December 1990, and 11 January, p. 157), made a peace offering last week: the university will return $500,000 from government research funds received since 1981 as reimbursement for expenditures in running the university-owned homes of its president, provost, and vice president for public relations. In addition, Stanford has hired the accounting firm of Arthur Andersen and Co. to review its accounting methods, and has assembled a panel of outside advisers to help carry out any changes Andersen may recommend. All this, university officials hope, will mollify Representative John Dingell (D–MI), who is currently investigating Stanford's indirect cost accounting practices.

Investigators from Dingell's Subcommittee on Oversight and Investigations have argued that money spent on things such as flowers and a cedar closet have nothing to do with research. Stanford officials initially responded that some of the expenditures were legitimate since the houses often host research-related events. But now Stanford has decided to remove all the house-related charges.

The university is making much of the fact that its newly appointed auditors and advisory committee—which includes former National Security Agency director Bobby Inman—are free to scrutinize Stanford's accounting system "from top to bottom."

But Dingell's investigators are not impressed. One staffer said he is not sure the Andersen team will go through the accounts on the kind of voucher-by-voucher basis needed to "get the garbage out."

The Case Against Crop Chemicals

"Organic" farming is not some luxury pursued by fuzzy-minded counterculturists and health-obsessed yuppies. Rather, it's a matter of hard-nosed economics, says a new, wide-ranging study led by Cornell University agricultural scientist David Pimentel.

Agricultural chemicals have become increasingly counterproductive, argues Pimentel: the tonnage of chemical pesticides applied to U.S. croplands has grown thirty-three-fold since the 1940s, and their toxicity has grown roughly tenfold. Yet crop losses to insects, fungi, and weeds have actually increased in that time, from 31% to 37%. This is due in part to insects' ability to develop resistance to every new pesticide that comes along. But government commodity price supports are even more to blame, says Pimentel, because they encourage farmers to specialize in single crops instead of rotating them to keep down the pest population.

If U.S. farmers could cut their use of chemical pesticides in half—which could be done easily by employing such well-proven alternatives as crop rotation and biological pest control—then food prices would rise by less than 1%, or about $1 billion per year, according to the report. And the benefits would be overwhelming: The nation would save from $4 billion to $10 billion per year in terms of decreased damage to fish and water supplies, decreased costs of pesticide regulation, and decreased health care costs for the 20,000 people a year who are poisoned by pesticides.

"The study should have been done a long time ago," says Pimentel. Although agriculture critics have been saying the same things for years, he says that this is the first really comprehensive cost-benefit analysis of pesticide use. Published in a new edition of the *Handbook on Pest Management in Agriculture*, from CRC Press, it is a synthesis of more than 300 previously scattered research reports.

David Lynch-Benjamin

David Pimentel. ***Pennies more at the supermarket could save billions in pollution, health, and regulation costs.***