

Solving genetic puzzle may make wheat more nutritious

WASHINGTON, D.C. — Wheat can be made an even more nutritious food for the world's hungry if a genetic puzzle about this food staple can be solved.

The puzzle: How to change the plant's hereditary pattern.

Frank C. Greene, a chemist pursuing food protein research, said he hopes to find a solution through gene splicing techniques he is developing for the U.S. Department of Agriculture's Agricultural Research Service in Berkeley, Calif.

Greene will work on the genetic puzzle in a gene splicing experiment that the research agency has selected to receive the T.W. Edminster award honoring its outstanding research proposal for 1982. Edminster was the agency's administrator from 1971 to 1980.

Terry B. Kinney, Jr., who succeeded Edminster, presented the award to Greene in Berkeley last Monday.

Kinney said the award-winning proposal developed by Greene

makes it possible to hire a research associate to join in the wheat studies.

Olin D. Anderson, a young biochemist from DeQuincy, La., has been chosen as the research associate, Kinney said. Anderson previously was involved in a postdoctoral study at the University of California, Berkeley, on the way genetic material or DNA is expressed in plants and animals.

Greene's proposal was chosen from among those submitted by 48 scientists at agency research locations throughout the country.

Kinney said the award and research associate appointment, now in the second year, are part of the efforts by the Agricultural Research Service to recruit and encourage outstanding young talent in the scientific community to carry out basic research in the agency.

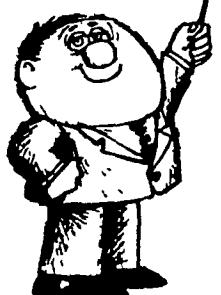
The researchers will use recombinant DNA technology to change the hereditary patterns of

wheat. Using extremely sophisticated techniques, the researchers will splice wheat DNA into bacteria. Then, the bacteria will become wheat DNA factories producing large quantities of DNA for further research.

Once the basic molecular structure of the wheat DNA is understood, scientists will have the tools to alter the genetic material of the wheat. When the genes are altered, the quality and quantity of the wheat also will be fund-

mentally changed.

Greene has been with the Agricultural Research Service since 1961. He is a chemist in the food proteins research unit at USDA's Western Regional Research Center, Berkeley.



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