

Scientists score breakthrough in disease control

UNIVERSITY PARK — Scientists at Penn State have made a "breakthrough" in managing genes to solve some of the age-old problems of protecting crops from diseases.

From experiments, the scientists have discovered that single genes once considered ineffective in controlling diseases - and thus discarded - are resistant when combined.

Used in plant breeding programs, such genes complement other genes and can strengthen greatly the disease resistance of plants, according to Richard R. Nelson and David R. MacKenzie, plant pathologists with the Agricultural Experiment Station at Penn State.

Nelson and MacKenzie developed a disease model to evaluate genetic strategies. In-

vestigating the powdery mildew disease of wheat, they found that disease resistance known as race-specific and race non-specific are both conditioned by the same genes.

"This discovery makes it possible to use more of the race non-specific genes in breeding programs, thereby improving the disease resistance of plant varieties," Nelson stated.



Penn State plant pathologist Richard Nelson, left, and David MacKenzie, right, examine wheat and rice seedlings in their search for new sources of resistance to disease. Their research into gene management is expected to contribute to a more stable food production.

Local group asks consistent ag policy

EPHRATA — Morris Brown, Jr., president of PennAg Industries Association, Thursday called upon national leaders to form a more consistent and definite policy to continue the economic health of the nation's top industry — Agriculture.

"This week we celebrated Agriculture Day nationally," Brown stated "Let's take time to assess the assets that agriculture and related industries have provided us and take steps to continue its economic growth."

U.S. agriculture, with a 1980 record \$927 billion in assets, employs over 15 million people and has been a top inflation fighter with productivity growth five times that of non-farm businesses during the last five years.

Ag-related businesses were also active in exporting \$40 billion farm products in 1980 to qualify as the nation's top exporter.

"We have noted two recent examples of inconsistencies in our national ag policies concerning the U.S.S.R.," Brown said

"On the one hand, the U.S. has apparently decided to continue the grain embargo which has proven more annoying than effective to the Soviets. Indeed, some students of Russia even suggest the con-

tinuation of the embargo may be counter-productive to our expectation. Soviet ag policy makers are under greater-than-ever pressure to make their nation self-sufficient."

"On the otherhand," Brown continued, "PennAg has learned the Soviet officials have been working to obtain American projections of Russian crop production. These projections are based on satellite runs over the Soviet Union."

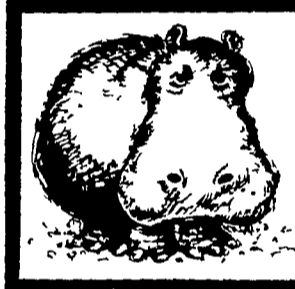
According to a report recently released in U.S. News & World Report, Soviet agricultural officials in Moscow have admitted the U.S. information on their country's outlook is better than that available from the Kremlin.

When contacted, Washington officials neither denied nor confirmed that such information has been shared with the Soviets,

although they did note that all such crop production information is made public at regular intervals and therefore could be used by Russian officials.

Whether or not such information is given directly or indirectly, Brown believes a more consistent ag policy is needed; one that is devoid of political overtones and protects the future of the nation's top industry.

Other leaders in the agricultural community have echoed Brown's sentiments. Stressed in the call for such a national commitment have been such key elements as: assurance of fair rate of return on investment; preservation of prime agricultural lands; support of research and development; renewed emphasis on the federal, state and local government partnership; and reasonable laws and regulations



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