Local

Bugs conquer bugs, control pests

Techniques not refined enough to replace pesticides yet

By LAURA CORTEZ

vironmental hazards, there appears to be no end in sight to the large-scale use of pesticides in this coun-try. Biological control, however, is a search is being done i has been successful in reducing pes- plemented here. ticide use

Predators, parasites and disease organisms can be used to effectively control insects, diseases and weeds Predators of Gilstrap said. Pesticides a which destroy about 33 percent of the potential food crop in the United States. area, and "you're not going to con-vince many growers that pesticides are not good — they've had too much

Basically, biological control aims at restoring and maintaining the natural balance of the ecosystem. Success with them," he said. Another problem is that biological control does not eliminate all of a Much of the pest problem results

Pesticides are used heavily Pesticides are used heavily tolerances (legal levels) for pesticide in this area, and "you're residues, the tolerance for insect not going to convince many growers that pesticides are not good — they've had too much success with them," Dr. Frank Gilstrap, associate professor of entomology at Texas A&M University, said.

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from man transporting plant and animal species from their natural habitats to places foreign to them. In addition, excessive pesticide use destroys beneficial as well as pest

Dr. David Pimentel, an entomo-logist at Cornell University, estimates that crop losses due to insect pests have increased nearly twofold (7 percent to about 13 percent) from the 1940s to the early 1970s.

Pesticides are primarily used to help combat the problem, but the "bug vs. bug" method of pest control has been successful on many food

crops. Dr. Frank Gilstrap, associate professor of entomology at Texas A&M University, said although California, Hawaii and Florida are the leaders in biological control of insects, Texas has had some "striking successes," and has the potential to be the leader

Biological control is a "routine technique" in controlling pests on citrus crops in the Rio Grande Valley, where the citrus black fly is being maintained at a low level by its parasite (a beneficial insect that lays eggs in the pest insect, thus killing the pest while producing its own offspring).

Gilstrap said this method is also being used on tree crops, such as peaches, apples and olives, as well as on nut crops. It has not been widely

By LAURA CORTEZ Battalion Reporter Despite potential health and enadded that much research in Texas is

Le use of pesticides in this coun-Biological control, however, is a n-chemical method of control that Texas A&M), little is being im-

"Brazos County is certainly not the vanguard of biological control," Pesticides are used heavily in this

particular pest and may leave insect arts in certain crops. Gilstrap said, "Although there are

parts is zero. This means you better use pesticides or you can't sell your crops. We're caught in a vicious circle." The problem now is that there is

not enough information on how much crop loss farmers would suffer

if they stopped using pesticides. In an article in BioScience, Pimentel said, "At this time, it is not clear whether crop losses due to insect pests would continue to increase or would decrease over time if pesticide use were terminated.

Gilstrap said that sound research must be the basis for pesticide use, and researchers, rather than chemical salesmen, should be consulted before pesticides are employed. But while it is doubtful whether

pesticides will be replaced by biological control, there will be a trend away from pesticide use in some crops, and more emphasis on pest

management, which takes advantage of as many natural sources of control as possible, he said. Weeds and plant diseases also cause serious problems in food

"Biological control will not be the solution to all our problems. But what's frustrating is that it could be the solution to many more of our problems," Gilstrap said.

crops, but biological control in these areas is not as advanced as insect

control Dr. R. D. Martyn of the plant sci-ences department at Texas A&M said, "Entomology is without a doubt in the driver's seat when it comes to biological control. They (entomologists) have about a hundred year jump on us, and they've got much more success stories than we have."

He said most of the work in plant pathogens is still in the experimental stage, and little is applied.

Martyn cited two successful prog-rams in the United States: one at the University of Arkansas where a fungus is being used to control Northern joint vetch weed in rice crops, and another in the Pacific Northwest, where a fungus is being used to con-trol skeleton weed on rangeland

crops. Biological control is not practiced in this county, but Texas A&M is involved in a good deal of research. Among this research is control of aquatic weeds that plague Texas riv-ers and lakes. One of these weeds,

the water hyacinth, is for research purposes in plastic children's swimming pools in a greenhouse on Agronomy Road. Martyn said that even though

biological control is still in the experimental stages, other nonchemical methods such as breeding for disease resistance and making the environment unfavorable to the

pathogen are being successfully He could not estimate when biolo-gical control would become wide-

spread. "The breakthrough could come tomorrow or it could never come," he said

It appears progress in plant and weed control is coming slowly, yet the success of insect control is encouraging, and the benefits are clear — it is safer and cheaper than pesticides.

An example of the cost difference is a beneficial wasp which controls citrus red scale for \$20 an acre, compared to \$200 an acre for pesticide spraying.

Biological control will not be the solution to all our problems. But what's frustrating is that it could be

the solution to many more of our problems," he said.

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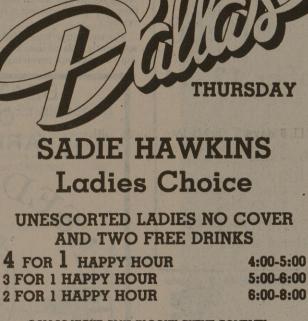
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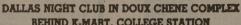
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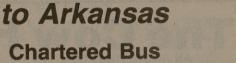
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meets no obstacles

Voyager 1

United Press International PASADENA, Calif. — Climaxing a three-year space journey, Voyager I cruised inside the mysterious rings of Saturn Wednesday, pouring back fascinating photographs to Earth as it neared its closest encounter to the second largest planet in the solar

The rain in Spain proved no obsta-cle to reception of the signals. Pulled by Saturn's gravity to a high speed of 56,559 mph, the spacecraft was scheduled to reach its closest approach point at 5:46 p.m. CST, skimming just 77,200 miles above the rolling clouds of the giant gas

Scientists at the Jet Propulsion Laboratory were concerned that rainstorms in Spain during the night would interfere with reception of some of the most important data by an antenna near Madrid, but their worries proved unwarranted.

"We're heading for our close encounter and all is going well. A number of fascinating photographs have come in," Hibbs said.





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