

A&M research focuses on controlling fire ants

By Leslie Guy
Reporter

A Texas A&M program is working on solving a problem that has become more than just pesty.

The imported fire-ant program, headed by Dr. Brad Vinson, is a long-term research project aimed at studying and controlling fire ants.

"They (fire ants) have taken over Brazos County," Vinson said. "There are 300 to 400 multiple-queen mounds per acre where there used to be 40 or 50 single-queen mounds."

The ants moved into this area in the mid-1970s and lived in single-queen colonies, Vinson said. However, about five years later, researchers discovered multiple-queen colonies. These often have a hundred queens who lay eggs, produce workers and build many mounds, he said.

The fire ants replaced about 12 species of ants in Texas when they came to the state.

Since the ants intermingle and move around, they are difficult to treat, he said. One treatment, Mirex, had worked, but was canceled in 1978 for environmental reasons. Now researchers believe it may have contributed to the spreading of the fire ants.

"Using pesticides is a temporary solution and I don't see this changing," Vinson said. "We are searching for a novel approach to control the problem."

These ants eat other harmful insects, so wiping them out completely would be too drastic and would only create other problems, Vinson said. To decrease the severity of the extermination, researchers must determine how to manage the multiple- and single-queen colonies. Methods used to eliminate multiple-queen colonies kill most single-queen colonies, so the problem is not solved, Vinson said.

The researchers are also studying the possibility of genetically controlling the ant population. Sterile males have been found in multiple-queen colonies and if they can find a bad

gene, the researchers feel that they could possibly come closer to solving the problem.

"We have to have a lot of patience and be hopeful that something will come out," Vinson said.

Even though he enjoys studying ants, Vinson would like to get rid of

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— Dr. Brad Vinson, head of the fire-ant project

the fire ants if he could and let the ones native to the region return.

"I like the native ants and insects," he said. "The fire ants make the environment more simple by killing a lot of these native insects."

The program, which began in 1973, also is examining the spread of fire ants around the country and the impact they have on the environment and the effects destroying the ants would have.

Supported by the state and federal governments and private organizations, researchers have studied the fire-ant problem extensively and developed Pro-Drone, a type of bait applied to individual ant mounds, Vinson said. However, he foresees no federal program that will eliminate the problem.

The researchers are looking at methods other than pesticides to control the growing number of imported fire ants in the United States.

The red imported fire ants were probably brought to the United States from southern Brazil aboard cargo ships in the 1930s. From there they spread to the other southern states.

The imported fire-ant program also examines the spread of ants. Re-

searchers believe the ants were in sod which was sold to other parts of the southern United States. In the 1950s the federal government tried to control the shipment of sod to lessen the problem.

Vinson said now the fire ants spread primarily in mating flights. They mate in the air and the queen lands to begin a new colony, he said.

Researchers also study the effects of fire ants on society. Vinson said single-queen colonies pose little threat because they are less aggressive, do not sting and stay away from people.

"You don't know they are out there; they run the other way," he said.

On the other hand, multiple-queen colonies are harmful and "one sting could lead to death for some people," he said. People react differently, but almost everyone who is stung gets pustules, which easily become infected, he said.

Vinson said fire ants also affect tourism in Texas. "People don't want to go to the national parks and get stung," he said. The ants deter outdoor activities and have a big impact on people's lives, he said.

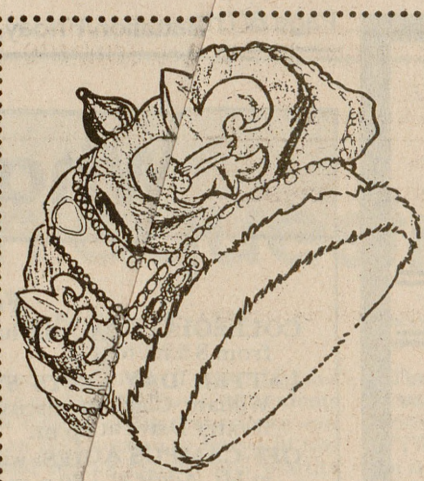
"Rather than us dictating as they dictate us," he said. "This has a big impact."

Vinson said searching for an ecologically sound approach that is gentle on the environment is another area the program covers. They look at the ants' impact on the environment and the environment's impact on ants, he said.

The imported fire-ant program is led by Vinson, but research is done by students and people with doctorates, he said.

To aid researchers in studying ants, the imported fire-ant program has a lab on campus with hundreds of colonies. The ants can be found on plots of land on the A&M farm, he said.

The researchers are working diligently to control fire ants in Texas, which Vinson said is "a deep in ants."



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Program attempts to help children deal with cancer

Feelings of guilt plague siblings of patients

DALLAS (AP) — Nine-year-old Zachary Brooks was finishing a bag of potato chips at Children's Medical Center, saying that he feels guilty that his 4-year-old sister has cancer. "She got it in my room," he says seriously, as if admitting to a crime.

"I was in there playing with some Styrofoam and she wanted to play with it too," he recalls. "I broke her off a piece and let her play with it. She put the Styrofoam in her nose." Shortly after that, his sister Sara, who at the time was 2 years old, was diagnosed with cancer of the muscle around one eye.

His parents and social workers at the hospital repeatedly have told Brooks he didn't cause his sister's illness. They've told him that childhood cancer sometimes just happens and that no one knows why. Brooks still thinks he was responsible.

Brooks was one of 16 children who visited Children's Medical Center recently as part of a new program for siblings of cancer patients. The program's aim is to help children deal with having a brother or sister battling cancer.

Too often, experts say, siblings are overlooked. Everyone focuses on the ill child and the parents. All the siblings may see is that their parents are tired and troubled, spending more time at the hospital than anywhere else. And they watch their brother or sister lie in a hospital bed receiving chemotherapy.

The siblings may feel confused, frightened and alone. They discover that there are other children who share those emotions.

Hospital employees who work with cancer patients and their families started the program by asking the children to fill out a questionnaire. Questions included "What is cancer?" and "Did your brother or sister do something wrong to get cancer?"

To the question, "What is the worst thing about cancer?" most children answered that it can kill.

Sally Francis, the director of the child life-child development department at the medical center, told the children it's OK to feel anxious and frightened and it's OK to feel angry that their parents are spending so much time with the sick child. She showed them a film, "Siblings Speak Out," featuring children talking about what it's like to live with a sibling who has cancer.

The children on the screen spoke honestly, with courage and compassion. "Sometimes I think I'm going to be next," one girl says. "I think I might get it." Another young boy says, "Sometimes I wish I had it so I'd get as much attention."

The siblings, ranging in age from 4 to 16, sat in a circle intently watching the film. Some sat motionless, others swayed their legs under their

chairs. But no one took their eyes off the TV screen.

After a brief discussion of the film, the children visited the clinic where their siblings are treated. They talked with Dr. Peggy Sartain, a pediatric oncologist and associate professor of pediatrics at the University of Texas Southwestern Medical School. She described cancer, chemotherapy, blood counts, intravenous injections, radiation and hair loss. Later, Francis and co-workers let the children handle IVs, syringes and stethoscopes as the adults explained how the devices are used.

"I just feel sorry for her. I wish it wasn't her. I wish it was me. She doesn't understand. I do. A little bit."

— Zachary Brooks, 9, whose 4-year-old sister, Sara, has cancer

Finishing up with a hamburger, potato chip and cookie lunch, the children said they enjoyed the program. "They helped us understand," 11-year-old Vicki Solomon said. Solomon's 14-year-old brother was diagnosed Feb. 14 as having cancer. At 2 that morning, her brother became sick with symptoms similar to those of appendicitis. Six hours later, they were told her brother's pain was caused by a 7-pound tumor in his stomach.

The tumor was inoperable, Solomon says, so doctors placed him on chemotherapy. Most of his hair has fallen out and he has lost 24 pounds. But the tumor is gone. "They say the chances are good," Solomon says, looking down to the floor. "But there's still a chance it could come back."

She says she's scared for her brother, Brian, but she also gets mad at him. "For a year, I was asking for a 10-speed bike," she says. "I ended up getting one. He gets a whole lot more. I feel left out. All the kids feel left out."

Solomon, who lives in Garland with her parents, three brothers and one sister, says she has "a sad feeling" about her brother's disease. Her one wish, she says, "is that the cancer won't come back and Brian will be better."

Brooks has similar hopes for his sister, who finished her chemotherapy treatments this summer. "I just feel sorry for her," he says. "I wish it wasn't her. I wish it was me. She doesn't understand. I do. A little bit."

He, too, felt left out. "She was getting all the attention," he says.

"When Sara would ask for something, they (her parents) would say yes. When I asked for something, they would say no and run off (to the hospital). They left me alone."

But his fear is that Sara's cancer will reappear. "When she goes in for chemotherapy or a CAT scan, that the cancer will have grown all over her face. Someday, she may never wake up."

Francis has heard such fears from a number of siblings. Since 1981, Francis and Hilda Glazer-Waldman, an assistant professor of allied health education at the University of Texas Health Science Center at Dallas, have studied some 75 siblings between the ages of 5 and 16. Using standardized interviews, questionnaire and problem-solving tests, the researchers attempt to determine the siblings' knowledge about cancer, their self-esteem and general feelings about their brother's or sister's illness.

So far, they have found that children don't understand cancer and the various ways to treat it. "The siblings really don't know any more about cancer than a group from a normal population," Francis says. When a 5-year-old boy was asked if his brother did something wrong to get leukemia, he replied, "Yes. He ate lasagna sometimes."

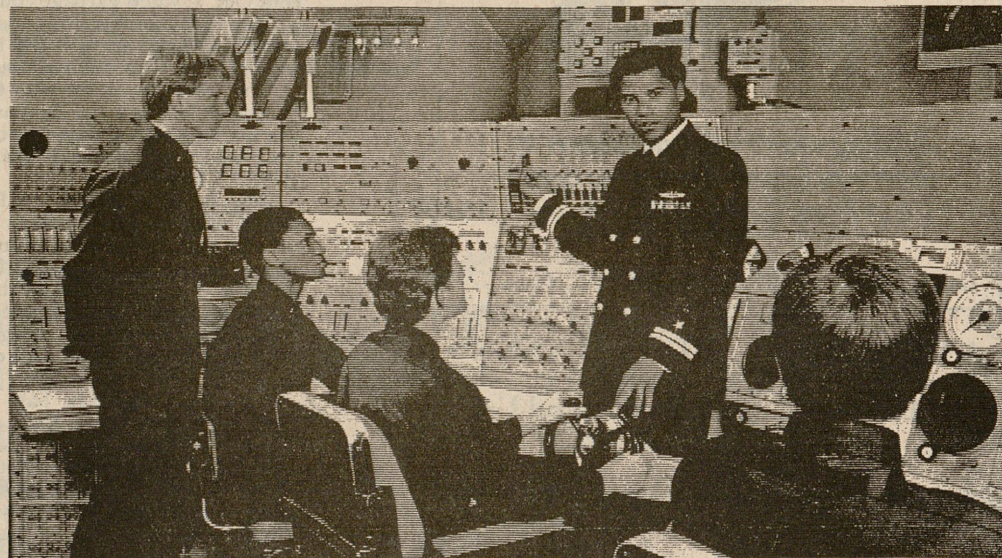
Some children, like Brooks, believe they gave their sister or brother cancer. "They assume the guilt," Francis says. "Children still think egocentrically. They think the world revolves around them. They make things happen."

Glazer-Waldman and Sharon Jitch, a clinical social worker in the medical center's oncology department, are trying to determine what helps families handle a child's illness. Through their research, funded by the Association for the Care of Children's Health, they have identified some 12 characteristics.

The parents and siblings typically have a very hard time dealing with the trauma, for example, if the prognosis for the child's recovery is not good, the family lives far from the hospital and English is their second language. Single parents with little money and few friends or family members to turn to for support also may have difficulty.

Although the program focuses on the problems of siblings of cancer patients, Francis says her research shows that a brother's or sister's illness usually doesn't devastate the child for years. "Not every child has long-lasting negative effects," she says. "That's our hope for every child. Every sibling. Every family."

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