

C

ody Johnson often begins his workday at 4:00 a.m. The dusty greens and browns that cover his 2,800-acre “office” are

barely visible. Waking animals and hushed conversation break the predawn stillness.

Such a morning could belong to any of the ranchers, farmers, or scientists who work in the sagebrush deserts and wheat fields of northeastern Oregon. Johnson is none of these. But both agriculture and research have helped prepare him for his career.

Though he’s just 22, Johnson manages wetland resources and game bird hunting at the Wanaket Wildlife Area next to the Columbia River near Umatilla, Oregon. Hundreds of thousands of waterfowl stop at ponds on the property during their migration south. Shorebirds like avocets and long-billed curlews, as well as burrowing owls, breed on the property.

Johnson credits his first job as an ARS research apprentice with helping him gain basic skills that he uses every day in his current position. In 1991, Johnson interned with the ARS Soil and Water Conservation Research Unit at Pendleton.

“Before ARS, I had never done any fieldwork. I knew I wanted to work outside, but the fieldwork led me to look for a job like I have now,” Johnson says.

“We wanted to study the effect of different cultural practices on the strength of the straw, or residue, that is left after a winter wheat crop is harvested,” says Dale Wilkins. He is the ARS agricultural engineer who supervised Johnson. “This straw helps control erosion until the next crop comes up. But if the plant material is weak, it can break down too soon,” he explains.

Cody  
Johnson

## Fieldwork Leads to Resource Management

Wilkins says Johnson helped set up some of the study plots, measure straw strength on existing plots, collect wheat yield information, and enter data into a computer.

“He saw all parts of sampling and analysis on that project,” Wilkins says. The study ended this year, and Wilkins and colleagues are analyzing the results.

“It was tedious at times, but it gave me an important introduction to collecting scientific information,” says Johnson.

Now he uses those skills to survey the numbers of western painted turtles, burrowing owls, and breeding waterfowl at the refuge. “I wouldn’t

want to collect data full time—but I love the surveys I do here,” he says.

The area, previously an irrigated cattle ranch and feedlot operation, was purchased by the Bonneville Power Administration under the Northwest Power Planning Council’s fish and wildlife mitigation program.

The program reduces the impacts of construction and operation of the McNary Dam on wildlife and habitats. It is supported by state, federal, tribal, and private conservation organizations to provide both recreational opportunities and habitat for breeding and migrating wildlife.

Called after its Indian name of Wanaket—which means “water in



Oregon wetland resource manager Cody Johnson (left) examines a soil core sample drawn from the Wanaket Wildlife Area along the Columbia River by ARS agricultural engineer Dale Wilkins. This Oakfield sampling tube shows the soil's depth, structure, and water content. (K7346-11)

trees”—the area will be managed in perpetuity by the Confederated Tribes of the Umatilla Indian Reservation near Pendleton. Johnson was born and raised on the reservation.

During his work with ARS, Johnson also gained experience using computers, identifying weeds, and running large machinery. He has continued to learn about all three in order to record hunting permits, manage weeds on the refuge, and operate a backhoe during irrigation projects. In the future, he'll map the irrigation canals using GPS, or global positioning system technology. The information will be used to improve the efficiency of water delivery to wetlands visited by the birds.

But less tangible benefits of the internship may have helped Johnson even more.

“Early on, interns formulate work habits, teamwork, and dependability,” Wilkins says.

Johnson agrees. “The ARS internship helps you take up responsibilities, and now I have a lot of them. Most people go to college for several years and are very lucky to get a job like I have,” he says.

Carl Scheeler, Johnson's supervisor, says the experience made him a good candidate for the reservation's summer youth program. Johnson worked at the refuge through that program for 2 years after his ARS internship. After graduation from Pendleton High School in 1993, he was hired on full time at Wanaket.

Working with groups at the annual ARS field day also proved useful to Johnson. “Cody was shy,” says Wilkins. “And it's pretty

intimidating for high school interns who work here to be surrounded by Ph.D's. The apprenticeship gave Cody confidence in his ability to work with others.”

Now Johnson meets daily with up to 60 hunters from October to January. He is responsible for running the lottery that selects who gets to hunt each day and for explaining and enforcing state and refuge hunting regulations. Even Wilkins showed up to hunt one day.

“It was neat to have him see me in that role, since I got most of my starting experience at the lab,” Johnson says.

Like Johnson, many interns pursue careers outside of agriculture.

But Wilkins feels that ARS benefits indirectly, regardless of the students' career choices. He's supervised more than a dozen interns.

“We hope that some students will eventually come back and work for ARS. But our goal is to create for the interns an appreciation of research and to show them that agriculture is much more than just driving a tractor,” he says.

He notes that the lab's mission is to conserve soil and water, and that like Johnson, many interns go on to environmental careers in resource management. For others, the internships help students to match their skills and talents with their interests and to develop a positive employee-employer relationship.

“As long as the students succeed, I feel good,” Wilkins says.—By **Kathryn Barry Stelljes, ARS.** ♦