Moving Forward...New Research and Extension Opportunities

The Agricultural Research and Development Center (ARDC) has been conducting research for over 50 years, research that impacts Nebraskans. And Nebraska Extension is tasked with providing relevant, research-based educational opportunities and information. It’s a long-standing partnership between research and Extension - transforming research into results.

In 2014, a resource optimization task force was formed to evaluate how to best utilize the physical and administrative resources at University of Nebraska-Lincoln’s Institute of Agriculture and Natural Resources (IANR) facilities located across the state. The team gathered input from both internal and external stakeholders and considered how to most effectively integrate research, Extension and teaching towards the IANR land grant mission.

As a result, the Eastern Nebraska Research and Extension Center (ENREC) is being developed. ENREC is headquartered at the ARDC and includes ARDC research programs, Southeast Research and Extension District (ARDC), Northeast Research and Extension District (Concord), South Central Ag Lab (Clay Center) and a newly developed Metro Extension District (Omaha). Extension in Saunders County continues at the ARDC. This new model specifically addresses the needs of eastern Nebraska in terms of research and Extension efforts by new collaborations and leveraging strengths of existing resources and closer ties to IANR departments and schools.

With the launching of ENREC, there are many exciting developments which will be highlighted in the next publication. The next newsletter will undergo a few changes, but will still keep you up to date on research and provide more information on Extension programming opportunities.

Providing Quality Equipment and Significant Savings to Fire Districts

Typically, fire districts acquire vehicles for 5% or less of the cost of new vehicles.

Replacement value for FEPP equipment placed in Nebraska is $68 Million.

The next time you see your local rural fire department out on a call, take note of the fire truck they are using. It just might have had “a previous life.” Perhaps that same truck resupplied combat vehicles and weapon systems. Or it might have even transported guided missiles. Maybe it was used stateside for military training. Or it could be that it was utilized overseas for a military operation. Such is the intriguing past of Federal Excess Personal Property Program vehicles utilized by many fire districts across Nebraska.

More than 260 rural fire districts in Nebraska are using reconditioned federal vehicles obtained through the Federal Excess Personal Property/Firefighter Property (FEPP/FFP) program. The program is coordinated by the Nebraska Forest Service Fire Shop at the Agricultural Research and Development Center.

The program, operated in cooperation with the U.S. Forest Service, currently provides more than 700 vehicles—with a replacement value of a whopping $68 million—to Nebraska fire districts. The vehicles are made available to rural fire districts for only the cost of shipping and reconditioning. Typically, fire districts receive vehicles for 5% or less of the cost of new vehicles!

The transformation of a surplus military vehicle into a suitable vehicle for local fire districts involves several important and necessary steps. When certain types of vehicles are no longer needed by the federal government, they become available at military and federal installations across the country. Through the Federal Excess Personal Property Program (FEPP), in cooperation with the United States Forest Service, the Nebraska Forest Service (NFS) is able to acquire some of these vehicles. The vehicles are then reconditioned and loaned to cooperating rural fire districts.

While in use by rural fire districts, the equipment remains federal property. The property must be returned to NFS when no longer used by the volunteer fire department. It is then reassigned or sold, with the proceeds returned to the federal treasury.

From Fire Shop to Fire District

The Nebraska Forest Service (NFS) is responsible for screening, retrieving, reconditioning, inventorying and assigning federal excess personal property. The process begins when vehicles are screened through the Government Services Administration website and brought to the Nebraska Forest Service Fire Shop at the ARDC. Upon arrival at the fire shop, mechanics inspect each vehicle to determine what repairs and upgrades are necessary.

Repairs are made to bring the vehicle up to current safety standards. Additional safety devices, such as back-up alarms, light repairs and upgrades are necessary.

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A Closer Look at the Fire Shop - Continued on Page 2
Saving Lives, Property, and Tax Dollars

Mead Fire Department Works with NFS Fire Shop to Acquire HEMTTs

In 2012, Mead Volunteer Fire and Rescue Department found themselves in a tight spot. Equipment needed updated and purchasing a brand new truck was not feasible. The MVFD executive board met with the Nebraska Rural Fire District Board on how to best utilize tax payers money while giving them the best fire protection.

MFVD Fire Chief, Nick Raver met with Lew Sieber, manager of the Nebraska Forest Service Fire Shop, to discuss options and to see if the NFS Fire Shop could assist in finding a truck that would work for the department.

Raver says, "I met with Lew and told him we needed a tanker that would hold at least 2,000 gallons and could go off-road. But we could not afford a new truck. He came up with a 2,500 gallon HEMTT (heavy expanded mobility tactical truck)."

HEMTTs are used by the United States Army. The 8x8 off-road trucks are capable of fording water crossings up to 48 inches deep. Standard size for these heavy duty vehicles is over 30 feet long, 8 feet wide, and over 9 feet high. With this type of build, the HEMMT seemed to be a good fit for what the MVFD was looking for.

The fire department took delivery of the tanker in 2013 and spent around $55,000 to get it up and running. Raver says, "We made the truck so it only took one fireman to run the truck. After using the truck for a couple years we went back to the rural board and requested another HEMTT."

In 2015 the MVFD acquired a second HEMTT bringing their ability to transport and utilize 5,000 gallons of water. Both trucks are equipped with spray bars and monitoring guns for fire fighting. The 2nd truck was also outfitted with a PyroLance which is a specialized, ultra-high pressure spraying tool for fire fighting.

Raver notes, "Since getting the two trucks we have been mutual aid to five different counties. We have used the trucks for all fires, car accidents, snow storms and most recent a water rescue." He says, "By making these trucks into multiple use emergency vehicles, we have saved our district around $600,000. They also serve as a great recruiting tool, it's not every day you see a fire truck like this! The rural community has no idea how many tax dollars are saved by this program."

Tending to all the Details - the NFS Fire Shop Staff

There are a lot of steps that must take place before an FFP vehicle reaches a fire department. A dedicated crew at the NFS Fire Shop sees to the many specifics and duties.

Office assistant, Darla Huff welcomes patrons who walk through the door at the NFS Fire Shop with a friendly smile. She verifies and maintains contact lists, handles billing, and completes the ‘official paperwork’ for placing and licensing vehicles.

Lew Sieber is the program manager/screener at the NFS Fire Shop. He locates equipment, meets with and matches VFDs to that equipment, manages the NFS fleet of vehicles, and oversees the construction of single engine air tanker (SEAT) bases.

Shop foreman, Jim Nelson, interacts with customers about repairs and oversees the shop operations. He is responsible for assigning projects to the mechanics, monitoring safety training, and developing ‘how-to’ instructions for VFD’s to complete repairs as needed in the field.

Jim is also a backup truck driver.

Doug Beck is the NFS Fire Shop’s senior mechanic. He performs repairs, processes equipment to be placed with VFDs and is a backup truck driver.

As line mechanic, Ron Gore performs repairs and processes equipment. Paris/inventory specialist, Randy Markwardt, is the front line for parts both in the shop and out in the field. Randy is also our safety officer for the fire shop.

Part-time assistance is provided by a team of dedicated employees. Eldon Moser takes care of ground maintenance. He keeps the facility looking good outside, mowing grass, keeping weeds at bay, and putting away trucks. He is also a backup driver.

Rich Osterloh is a part-time mechanic and SEAT base constructor - he specializes in fire truck repair and doubles in the field, constructing SEAT bases. Abe Lineberry and Jay Weyers serve as part-time drivers.

Delegates from the Yangling Agricultural Demonstration Zone Governing Body in Shaanxi China, Northwest Agriculture and Forestry University (NWAFU) got a close-up look at Nebraska agriculture at the ARDC. NWAFU is working with the Nebraska Department of Economic Development, the University of Nebraska and Nebraska-based agricultural businesses, as they seek to develop a demonstration farm in Yangling.

Global Engagement... Why do we do it?

We host visitors from many different countries at the ARDC. The research center is a great place to highlight University of Nebraska research and see it up close. The center also provides a venue for learning about agriculture in Nebraska and production ag in general.

Most often, groups that visit the center are part of a larger University of Nebraska Institute of Agriculture and Natural Resources (IANR) visit to the United States. Sometimes the question is asked, "So why does IANR want to develop these global partnerships?"

The answer is actually fairly simple...because of the importance of agriculture to our state and for the sake of global food supply and security. In a recent IANR All Hands presentation, IANR Interim Harlan Vice Chancellor Ron Yoder noted that U.S. agriculture exports are currently estimated at $124.5 billion and will account for nearly 30% of this year’s total farm and ranch gross cash sales of $415.7 billion. Nebraska ranks 5th nationally in agricultural exports with $7 billion of ag products exported worldwide.

Nebraska has a vested interest in doing what's best for agriculture. And IANR plays an important role in helping build and bridge partnerships of understanding and education. Not only does it help our economy, but those partnerships are an important step for improved water and agriculture. And IANR plays an important role in helping exports with $7 billion of ag products exported worldwide.

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Aerial Truck Acquired by NFS Fire Shop Leads to First of a Kind Joint Fire Department Partnership

Polk County volunteer fire departments are repeat customers of the NFS Fire Shop. The county has acquired nine different vehicles/apparatus. The Polk Volunteer Fire Department (VFD) utilizes a pumper, 2 tankers, and command vehicle. The Osceola VFD acquired a rescue and command vehicle. And the Stromsburg VFD acquired a tanker and a grass rig from the program. That’s eight.

But it is the ninth vehicle acquired for the county that garners the most attention. In December 2014, Truck #1, a 2003 E-one Bronto aerial ladder fire truck, left the NFS Fire Shop and headed for a new home in Polk County.

It’s rather uncommon for rural fire departments to have an aerial truck. The biggest obstacle is most departments don’t have an extra $500,000-$1 million or so laying around to spend on a new one or the tax payers willing or wanting to foot that kind of bill. But what if you could purchase that same truck with 30,000 miles on it for 1/10th or less of that cost...say, $3,000 when all is said and done?

An aerial truck is an excellent fire-fighting/rescue resource for elevated areas. These trucks can reach areas that are 100 feet. The ladder can be moved in all directions. In rural communities, oftentimes buildings in town are very close together and fires can spread quickly amongst them. And in rural areas, there are many buildings that are long and wide, or very tall, such as a grain elevator. The aerial truck makes reaching those areas easier and quicker.

But you don’t just pull into the parking lot of the NFS Fire Shop and see several aerial trucks just sitting there waiting for homes. They aren’t a high turnover item through the Federal Excess Equipment program. They aren’t just sitting there waiting for homes. They aren’t used. They are utilized on fire/rescue calls around Polk County. They are used on calls around the county that garners the most attention. In December 2014, Truck #1, a 2003 E-one Bronto aerial ladder fire truck, left the NFS Fire Shop and headed for a new home in Polk County.

The truck is utilized on fire/rescue calls around Polk County. Above, Polk Truck Company #1 was called to assist the Stromsburg Volunteer Fire Department with a structure fire in their rural district.
There are 22 aerial applicator companies, with 45 airplanes, who have agreed to cooperate with the NFS in the Aerial Fire Suppression program. Additionally, there are 20 locations around the state where firefighting foam is stored specifically for use in the aerial suppression of wildfires.

Also cooperating in this program are: Nebraska Department of Aeronautics, Nebraska County Sheriffs, and the Nebraska State Patrol.

Fuels Treatment Program: The NFS also administers a forest fuels treatment program. Plant life growing beneath the forest canopy, such as brush, seedlings, and saplings, growing near larger trees that form the canopy in wooded areas are known as “ladder fuels”. These ladder fuels serve as a pathway for ground fires to become highly destructive crown fires – the type of fire that burns quickly jumping from tree crown to tree crown ahead of the ground fire.

Forest landowners can take steps to reduce forest fuel loads on their land, thus creating an environment less prone to crown fires and rapid fire spread. During fuels treatment projects, timber is removed either mechanically or by hand. Leftover debris, also called slash, is typically scattered and left to decompose or piled for controlled burning or wildlife habitat. In some cases, the slash is chipped and used as fuel by institutions with wood energy systems, such as Chadron State College.

This program is currently open to forest land-owners in the Pine Ridge and Niobrara Valley areas. But fuels treatment programs may spread to other areas of the state to address growing concerns about hazardous forest fuel loads. Contact the NFS for more details.

Educational Resources: Whether it is providing mini-grants for seedling trees at events, tree care workshops for landscape industry professionals, information on how to find and hire a certified arborist, providing volunteer fire assistance grants for training or equipment in rural areas, or recognizing a community for their greenspace contributions, the NFS provides educational programs and resources across the state.

Most notably in recent news, has been the confirmation of Emerald Ash Borer (EAB) within the state. On June 8, Nebraska Department of Agriculture confirmed an EAB infestation in Pulaski Park, in southeastern Omaha. EAB has also been found in Greenwood. Nebraska Extension and the NFS have been releasing information and providing workshops for homeowners on how best to deal with EAB.

EAB is just one of the many topics that the NFS arms the public with information on. Whether it is finding ways to save ponderosa pine forests or controlling Eastern Red Cedar, selecting new seedlings or dealing with a storm damaged tree, or providing environmental education to youth, NFS provides a wide range of resources on how to protect, restore and utilize Nebraska’s tree and forest resources. NFS is engaged with the public in finding solutions and sharing that information.

Learn more about the Nebraska Forest Service at: http://nfs.unl.edu