Department of Dairy Science Blacksburg, VA 24061 540/231-6870 Fax: 540/231-5014 www.vtdairy.dasc.vt.edu

## DAIRY PIPELINE Volume 41, No. 1 January/February 2020

## The Move BACK to Gasoline Engines

—Andy Overbay, Extension Agent & Unit Coordinator, Smyth County; <u>aoverbay@vt.edu</u>

"Total cost of ownership is really dependent on your use and needs. No truck is 'cheap' anymore so it pays more than ever to do your homework."



For over a quarter century, the gold standard of farm pickup trucks has been the diesel-powered truck, regardless of brand. Lately, however, more and more manufacturers are reintroducing higher displacement gasoline powered trucks

and their popularity is growing. So what is the best solution for the farm operator whose truck is in need of a good trading? The answer is, as Dr. Leon Geyer used to offer in his Ag Law course, "It depends."

Frankly, engine technology in the past 15 years has changed to the point where it may be time to re-evaluate the data on engine performance and rethink which powerplant needs to go into your next vehicle.

Although diesel engines enjoy a sizeable miles per gallon (mpg) advantage over gasoline engines in automobiles, truck engines are a different story. The actual advantage enjoyed by diesel engines in light and medium trucks is less than 2 mpg. In government fleets where daily travel distances are limited, idling is an unfortunate reality, and load requirements can be met equally well with gasoline or diesel engines with little or no impact on mpg; diesel fuel's higher cost per gallon actually negates its slight advantage in mpg.

On the farm, our issue tends to be short trips where the engine doesn't warm enough for the diesel advantage to come into play. These short trips can play into expensive repair issues that we will discuss further into this article.

Non-fleet "experts" tout that rigid construction and the lack of spark ignition make die-

sel engines cheaper to maintain than gasoline engines. Fleet managers and maintenance personnel know better. Maintaining diesel engines is made more costly than gasoline engine maintenance by routine maintenance costs and frequency, higher diesel engine hard parts cost (starters, alternators, water pumps, batteries, etc.), selective catalytic reduction (SCR) emission system maintenance and repair, turbocharger maintenance, and other factors not present in gasoline engines. Although no hard data exists, some fleet managers say that diesel vehicles average 2.5 to 4.5 more downtime days per year. This is primarily due to either the lack of parts availability or to a shortage of qualified technicians, either at the dealership or fleet level.

This sentiment was echoed last year at the annual Feed and Grain Association meeting in Roanoke. An owner of a trucking company shared that the major issue he was battling at that moment was the downtime associated with emission system failures. He shared that some major trucking firms had closed their operations due to this issue and he fretted about the higher emissions standards that were coming in the near future.

But can gasoline give me that diesel grunt factor while towing? That is where a diesel really shines. Gasoline engines usually have the edge in horsepower but diesels overcome that by offering higher torque. This is where you really need to evaluate your personal needs. How often is the truck hooked to a trailer? If it is always pulling and working hard, it will be more likely to build heat and outperform the gas engine. If you pull only on occasion, you may find that the benefits of diesel torque are quickly subdued by lower fuel and maintenance costs. Oil and filter changes are where this can really come into play. Diesel motors not only require a







Page 2 Volume 41, No. 1

## **Upcoming Events**

See VTDairy for details.

February 4, 2020 Winter Calf Meeting, Montezuma Hall

**February 5, 2020** Manure Management

February 5-6, 2020 PA Dairy Summit

February 12-13, 2020 Virginia Sate Feed Association and Nutritional Cow College, Roanoke

February 15, 2020 Dairy Quiz Bowl

March 3, 2020 Weathering the Storm in Agriculture: How to Cultivate a Productive Mindset (Farm Stress program for producers), Halifax County

April 1, 2020 Virginia Spring Holstien Show, Rockingham

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

generally higher priced oil but more of it as well. Depending on the popularity of the motor, pendent on your use and needs. No truck is oil filter prices for diesel motors can run from as little as \$5 to over \$70. In my personal vehicles DIY oil change expenses differ by over \$60, and if using dealership service the cost difference would be over \$200.

Total Cost of Ownership (TCO) is really de-"cheap" anymore so it pays more than ever to do your homework.



Sharpen the *Your* Saw

-Jeremy Daubert, Extension Agent, Rockingham County; idaubert@vt.edu

In Steven Covey's book The tive People, Habit number seven is "Sharpen the Saw". Sharpening the saw means

seeking to continuously improve both professionally and personally. This involves physical, emotional, mental, and spiritual renewal and growth.

When you are sawing firewood, you can only saw so long before the saw needs to be sharpened. Sharpening the saw makes the work easier, faster and more efficient. Eventually, after being sharpened many times the chain needs to be replaced. And so it is in our lives. we need to sharpen the saw often and replace fered. Take some time to see what is availathe chain occasionally.

Sharpening the saw, or our skills, can mean going to an Extension meeting to learn a new practice. It can be getting in better physical health. It can mean spending more time in prayer or meditation. Taking care of our own well-being is one of the most important things that we can do for our businesses and families. Making small, but continuous improvements will help to keep both farm and family healthy.

Occasionally you will need to "replace the chain" or make a more significant change. This should be done at least every few years, or at least a strong evaluation of what changes need to be made for continuous improvement. For this, it is advisable to include some trusted advisors to help you identify when these major changes are needed and to help guide them. The only thing that is constant is

change. I've seen many farms and business-Seven Habits of Highly Effec- es sell because they did not keep up with industry changes.

> We are in the midst of what I call "meeting" season. Every company has a meal, pesticide recertifications are going on and extension is packing the schedule with educational meetings and workshops. I understand

"Take some time to see what is available and find something that can help your farm, your business, and your family."

that you cannot attend everything that is ofble and find something that can help your farm, your business, and your family. What each farm family needs may be a little different. Decide what you need and seek out what will help your farm.

If you want to know where to start for continuous improvement, visit your local extension office or check out the Virginia Dairy Extension webpage at https:// www.vtdairy.dasc.vt.edu/.

Remember to keep your saw sharp.

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

Christina Petersson-Wolfe, Ph.D. Dairy Extension Coordinator & Extension Dairy Scientist, Milk Quality & Milking Management

Extension is a joint program of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and state and local governments. Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Interim Administrator, 1890 Extension Program, Virginia State University, Petersburg.