

## NO TRACTOR, NO PROBLEM!

By Joel Dufour

You've finally gotten that 10 acres in the country, and you're eager to start a farming endeavor...maybe some hoofstock, or a market garden. Or perhaps an orchard, or a berry farm? But wait: There is so much work to do on the land first...you've got to clear all that brush, chip all those branches, haul these rocks, plow this plot...the list goes on. The neighbor stops by and says: "Looks like you're gonna need a tractor to get this land in shape!" OH YEAH...a tractor! Of course! After figuring up all the implements you need to do what needs doing on your land, and an appropriate tractor to operate them, you are in serious sticker shock...Where are you going to get another \$35,000, after you had to just about mortgage your Grandma to get the property? Well, there's always that used tractor for sale down the road...you know, the one that's sitting in those weeds with the rust-colored paint. OH...that's not paint. What model year is this? Wow--that's when my Dad was born! Tell me again what do I have to do to get this thing started? What's Ether? And why do I need a good set of tools? Oh, you'll sell me one of those too, eh?

NO, you decide you don't want to buy someone else's worn-out problem, and maybe you can get by without a tractor anyway. After all, it's just 10 acres, and you saw an ad for some walk-behind thing that can mow brush like anything. Well, OK, you'll need another machine to chip the branches, and another to haul stuff, and another to till up a plot....man, this is a lot of engines to maintain! And the belt keeps burning up on this fill-in-the-blank; you'd think they'd have made it better...

This scenario, or something like it, plays out often for folks getting their first taste of "land in the country"...Unless you are lucky enough to buy a place that comes with a barn full of equipment, you are going to be hunting for "the right stuff" to take care of your land.

Fortunately, there IS another option for the small-scale landowner...one that doesn't involve second mortgages or having to become a full-time mechanic. This is the equipment sector known as **Walk-Behind Tractors**...currently a mainstay for small-scale agriculture in Europe and Asia, but largely forgotten about in North America.

**What IS it?** A walk-behind tractor is by definition a **tractor**...that is, a power source that can operate multiple implements, just like a 4-wheel farm tractor. A true walk-behind tractor shares the same durable, high-quality design one would expect in a 4-wheel farm tractor: All-gear drive, automotive-style clutch, commercial gas or diesel engine, and shaft-driven implements. The big difference with a walk-behind is that it is smaller, only has a single axle, and has a set of handlebars rather than a steering wheel...obviously, you walk behind it rather than riding. To most North Americans, this equipment can easily be confused with "lawn & garden equipment", which has the same physical size...even lawn & garden equipment dealers are often guilty of this mistake. But an educated comparison shows the stark differences; what farmer in their right mind would buy a tractor that is belt-driven, has a disposable transmission, or is "single-purpose" and will not perform more than one function?

**What will it DO?** True walk-behind tractors will operate a huge assortment of implements to handle most any job on a small farm. The list includes Mowers (5 types), Tillers, Harrows, Plows and other soil-working devices (13 types), Snow removal implements (3 types), Hay-making tools (3 types), Chipper/shredders (2 types), Wood splitters, Electrical generator, Pressure washers, Transport carts (3

types), Stump grinder, Seeder, Crimper-roller, Aerator, Plastic mulch layer, and more. Implements are attached to the tractor unit by a PTO flange with an integrated drive-shaft; 2 nuts is the standard method of changing implements, but a quick-coupling system is optional on most walk-behind tractors to reduce implement change times to 30 seconds or so. Now you may be wondering...how can this machine run a mower in the front, but a tiller in the rear? Are there front AND rear PTOs? Not really...A really cool feature of modern European walk-behind tractors is a reversible set of handlebars, putting the operator on either the "implement" side of the machine (for soil-working implements) OR the "engine" side of the machine (for most other implements...mowers, snow removal, chippers, etc.). Reversing the handles takes 1 to 3 minutes depending on tractor model, and the swiveling handlebars also have the feature of locking in position 15 degrees off-center in either "mode", allowing the operator to walk off to one side of a tilled bed, keep you out of a thorn-patch you are brush-hogging, etc.

**Why aren't they made in this country?** Well, they used to be. Gravelly was the largest American manufacturer of walk-behind tractors, and there were several other USA companies producing them starting in the early 1900s. But the USDA push for big farms after WW2 dried up the market for many of them, and even Gravelly stopped producing them around 2003. Also, the American manufacturers never innovated much in this equipment sector...even in the last days of their production, Gravelly still did not have reversible handlebars... whereas the Europeans had adopted this eminently practical design in the 1960s. Now, almost all of the reputable walk-behind tractors are made in Europe (mostly in Italy, which boasts more than 15 brands). Two Italian brands that can be found in North America are BCS and Grillo; BCS being the most established, as they have been imported since the mid-1970s.

**Is it right for ME?** Most equipment is scale-appropriate, and walk-behind tractors are no exception. You wouldn't buy a 50hp tractor to mow an acre, and likewise you wouldn't want a walk-behind to mow 50. For the correct scale, walk-behinds are extremely practical...up to a couple acres of garden or lawn, 15 acres of hay, 10 acres of brush-mowing, etc. As they are very stable on slopes and take very little space to maneuver, the steeper and rougher the terrain, the more a walk-behind becomes attractive. The ability to walk is certainly a prerequisite in purchasing a walk-behind; there is a seat available for riding while mowing, but it is unwieldy and should not be relied on. These machines were engineered to walk behind!

**What do they cost?** Walk-behind tractors range in price from \$2000 to \$7500 with a HP range of 6 to 21. Generally, the larger the model, the more implements it will operate. Most implements range in price from \$150 to \$2000, although there are a few that exceed that (the haybaler is nearly \$10,000! But then again, where can you buy a new tractor & haybaler for \$15,000?). Used machines can sometimes be found, but rarely...most folks hang onto them for 30 years or more!

**How do I maintain it?** The simple and rugged design of a walk-behind tractor translates into high durability and low maintenance. Typical care consists of oil & filter changes (like any equipment), yearly control cable lubrication, occasionally checking tightness of high-stress fasteners (like the bolts that hold the implements on), and, as needed, replacement of worn "work" parts (mower blades, tiller tines, etc.). Eventual repairs after hundreds (maybe thousands) of hours of use would be items like clutches and PTO couplings (gearboxes almost never fail). With the relatively simple designs that most of this equipment employs, even these repairs can usually be done at home by anyone with decent mechanical abilities...many how-to documents and videos are available online for common repairs. If needed,

equipment can of course be brought to a dealer for repair. In this case, walk-behind tractors have the advantage of not needing a huge truck or trailer to haul them...with the adjustable handlebar design allowing them to fold down into a small package, any of the walk-behind tractors will fit in a SUV or most station wagons.

Last but not least, a major benefit of walk-behind tractors is EXERCISE. How many times have you heard “Walking is the best form of exercise” or “You should really walk more” from a doctor? How many Americans buy a membership at a health club and walk on a treadmill, and then go home and sit on a riding mower? With a walk-behind tractor, you can get work done on your land AND get good exercise while you’re at it!

**Author bio:**

Joel Dufour grew up on a small farm in Southern Indiana, where the family business included both an organic vegetable market farm and a small-engine dealership; his father started using & selling walk-behind tractors in 1977. Joel currently operates the largest walk-behind tractor dealership in North America, and uses a walk-behind tractor exclusively (well, and a chain saw too) to maintain his property in rural Kentucky.