

# **An Earth Tools Perspective: The History of Italian Walk-behind Tractors in the USA (and Earth Tools' history, too)**

By Joel Dufour, Earth Tools founder/owner

## **Late 1960s / Early 1970s: "The beginning" in North America**

Small quantities of BCS machines are imported by Webb Farm Supply in California. These are sold mainly on the West coast. Any old BCS 705 machines probably came in during this period (not to be confused with the underwhelming "705 Crusader single-purpose sickle bar" machine marketed by BCS America in the late 1990s...the original 705 was a very robust walk-behind tractor with a cast-iron transmission housing and about a 16hp engine [NOTE: ironically, the original BCS 705 was not even manufactured by BCS...they bought it from another Italian company that they were working with at the time: **Grillo**. So it was really a Grillo model GN12, re-badged for BCS]).

## **1974: "Mainline" starts importing BCS**

Central States Mainline (later called Mainline of North America), an American company based in London, Ohio, signs an 8-year deal with BCS to import the BCS machines to North America and re-brand them as "Mainline Rotary Tillers." All these early machines were equipped with the Italian-made ACME gas or diesel engines; a few had Lombardini diesels. Mainline sets up a dealer network, as well as selling direct to the public.

## **Late 1970s: California tries again**

Webb Farm Supply in California can no longer import BCS directly due to the contract between Mainline and BCS, so they import a few machines made by SEP, an Italian competitor of BCS which also happens to be blue in color. Again, these machines sold mainly in the western USA.

## **1977: The seeds of Earth Tools**

A small shop called D&D Enterprises of Salem, Indiana becomes a Mainline dealer. This business is operated by Victor Dufour, who is opening a small-engine shop as well as running a small vegetable farm. Victor's 7-year-old son, Joel (who later founds Earth Tools), starts his association with Italian walk-behind tractors.

## **1980: Joel gets his hands dirty**

Joel Dufour, then 10, rebuilds his first engine (with Dad's help) on a BCS machine: an ACME AL330 10hp that a customer ran out of oil.

## **1982 / 1983: Mainline's end with BCS, beginning with SEP AND the formation of BCS America**

Due to a falling-out between **BCS** and the **Mainline** company, the contract between the two companies is not renewed when it expires. Instead, BCS decides to come into North America under their own name, establishing a North American import headquarters (Initially called "BCS Mosa" [Mosa is a brand of engine-driven welding equipment that is also owned by the BCS company in Italy...the plan was to bring Mosa welders into the USA along with BCS equipment]---this didn't work out, so the company was re-named "BCS America" after a few years) near Charlotte, North Carolina. This facility is a subsidiary of BCS Italy. **Mainline**, for their part, is not done yet...after considering several other Italian brands (including Grillo), Mainline decides to compete with BCS by signing an import deal with **SEP**, the blue Italian walk-behind

tractors that Webb in California brought in a few of in the late 70s. Mainline markets these as: “*The **NEW**, improved Mainline Machines!*” There is a good bit of competition for the dealer network that Mainline set up using the BCS / Mainline Machines ... Mainline of course wants them to stay “Mainline” dealers and sell the new SEP / Mainline units, while BCS tries to convince dealers to “stay with BCS.” In the end, BCS’s more aggressive pricing wins many of the dealers over. Some dealers (like D&D Enterprises) become dealers for BOTH equipment lines. Both brands still equipped mainly with the Italian ACME engines and a few Lombardini diesels.

### **1982-83: BCS and Grillo split**

Around this time, the Italian **BCS** and **Grillo** companies discontinue their “technology sharing venture,” which has been underway since about 1967/68. BCS got their tiller design from Grillo during this period (and Grillo got their sickle-bar design from BCS), and it was also this collaboration that led to the design of the reversible-handlebar, multi-function walk-behind tractors by both companies. Both companies continue in business, as competitors rather than collaborators.

### **1983: ACME North America**

Previously, parts for the ACME brand Italian engines had been handled only by the Mainline company. In 1983, ACME establishes a North American import headquarters in Minneapolis, Minnesota: ACME North America. D&D Enterprises in Salem, Indiana signs up as one of the early distributors, selling ACME engines and parts to other dealers and to the public.

### **1984: Goldoni**

Mainline starts importing yet another Italian line: **Goldoni**, which they initially re-branded as “Golden Arrow.” Goldoni offers a larger/heavier walk-behind tractor model than BCS or SEP, so Mainline tries to fill a “commercial/landscape” niche with this size machine, with very limited success. The smartest thing Mainline ever did during the period was DONATE a Goldoni machine to an organic farmer in New England who was writing a book about small-scale farming ... a fellow named **Eliot Coleman**. The book was a great success and helped start a revolution in small-scale organic farming and local food production. It also was a good boost for Mainline, since Eliot mentioned Goldoni by name in his book (as Mainline intended!).

### **1986: Joel takes on more**

At D&D Enterprises in Salem, Indiana, 16-year-old Joel Dufour is put in charge of all sales, service, and parts for BCS and Mainline machines and ACME engines. He also uses them extensively on the family farm / produce business. (being home-schooled, and the family business being at home, Joel actually has time for all of this!).

### **1987: Ferrari Tractor CIE**

Eugene Canales of Gridley, California starts a small business called Ferrari Tractor CIE, which specializes in importing small Italian 2 and 4-wheel tractors and implements for them. He imports Ferrari brand machines (no relation to the automobile company!), Antonio Cararro, and others.

### **1986-7: BCS sets up “distributors”**

Since they started importing to North America under their own name in 1983, BCS America (well, BCS Mosa at the time) had sold “direct” to all their dealers. Because of the sheer size of North America and the non-central location of their HQ in North Carolina, this was proving to be a burden in terms of shipping costs and transit times, particularly for dealers in the west. BCS Mosa decides to sign up “regional distributors” who will then re-sell to the dealers. These distributors are independent companies who usually distribute multiple lines of equipment to dealers. Roughly a dozen distributors sign with BCS, to cover North America. D&D Enterprises in Salem, IN signs up as the regional distributor to cover Indiana and part of Kentucky... but due to lack of inventory space and personnel, plus poor truck-access (the business is located WAY off the main road!), they let the regional distributorship go to another company in 1988. D&D stays on as a BCS dealer, though.

### **1987: The first of “firsts”**

During their brief time as BCS distributors, D&D Enterprises presses BCS to offer their 715 model tractor with the new ACME model A220 engine, a 6.5hp engine that is much more “modern” than the older ALN series engines they have offered up until that point. The A220 offers much easier starting, quieter/smoothier running, etc. BCS says they’ll think about it... However, since D&D is an ACME distributor as well, they just go ahead and buy 30 of the A220 engines from ACME and start installing them on new BCS 715 tractors themselves... and are thus the first dealer to offer this option. In 1988, BCS “officially” adds this option to their line. This establishes in young Joel’s mind that “You don’t have to wait for the factory to make a change, if you have the means to do it yourself.” *A lesson to live by, as you will read...*

### **1988: The first non-ACME-powered BCS machines**

BCS starts offering Kohler engines on a few of their models to try and gain better market acceptance in the USA. Most models still have the Italian engines.

### **1988: BCS buys Ferrari**

BCS Italy purchases the Ferrari Tractor Company in Italy, which produces both walk-behind and 4-wheel tractors (again: NO relation to the Ferrari automobile manufacturer!). After a few years, BCS will discontinue the Ferrari-made walk-behind tractors and replace them with BCS tractors painted green. BCS will eventually start selling the Ferrari 4-wheel tractors under the BCS brand name in Europe.

### **Late 1980s: Grillo’s first attempt in the USA**

Sometime in this period, the Italian company **Grillo** sold a few of their walk-behind tractors to the Dyna-hoe company of America, who then marketed them under the Dyna-hoe brand. Very few units were sold by Dyna-hoe.

### **1992: Briggs & Stratton**

Starting this year, BCS starts offering Briggs & Stratton engines on some of their models in North America, as well as the Kohler engines. Only a few models are still offered in North America with the Italian ACME engines.

### **1994: Earth Tools’ beginnings**

Starting this year (well, technically in November of 1993), Joel Dufour, 23, leaves the family business of D&D Enterprises to start his own business, which he calls **Earth Tools and Goods**. He purchases the BCS and ACME lines of equipment from D&D, also becoming a dealer for a line of high-quality European hand tools. This new shop is still located in Salem, Indiana, a few miles from D&D.

### **1995: Re-vamp and big changes for BCS models**

The entire walk-behind tractor line is redesigned (except for the model 745, which is simply re-badged as the 945), now featuring a standardized PTO coupling (a “taper-3-jaw” type, which is still current today), and the Italian engines are eliminated from the North American models. This year also marks the departure by the American BCS headquarters from the “European” model numbering system. From here onward, the model numbers offered in North America differ from the model numbers offered by BCS everywhere else in the world (even if they are the same machine!). In the European BCS model-numbering system, the numbers always refer to the TRANSMISSION type / features. (For example: you could have a model 715 tractor with a 6, 8, or 10hp engine. “715” referred to the tractor model, not the engine power [just like having a Honda Accord with a 4-cylinder or a 6-cylinder engine...it’s still an Accord!].) In the “new” North American model-numbering system, each machine with a different ENGINE has a different model number, even if the transmissions are the same. (For example: the newer models 720 and 730 are actually identical machines...except that the 720 has an 8hp engine and the 730 has a 9hp.) This causes some confusion...

### **1995: Diesels phased out in North America**

Due to lack of market interest at the time, BCS America decides to phase out all diesel engine options on BCS machines offered in North America. However, diesels are still the standard engine on BCS in Europe. NOTE: Since Earth Tools is a distributor for both the ACME and Lombardini Italian diesel engines, they continue offering their customers custom installed diesel engine options. Diesel powered units account for about 10% of Earth Tools sales for several years.

### **1997: The beginning of Mainline’s end**

The Mainline company’s founder, Paul Sullivan, passes away suddenly, and his wife passes soon after. The company goes to their only heir, a son named Paul Sullivan Junior (who had never been involved in his father’s business, and had his own business endeavors well underway). Paul Jr. does not liquidate the company, but keeps it running under the management of Bob Daniels, a long-time employee who understands the equipment well. However, Paul Jr. apparently doesn’t intend for Mainline to continue much into the future, as he does not authorize the purchase of any new stock (other than spare parts) ... the intent seems to be to sell off the inventory and “cash out.” In the years following, employees are “let go” as revenues drop because of lower gross sales [resulting from a diminishing inventory!].

### **1997: The end of ACME North America**

The ACME engine company of Italy, which was founded in 1945, got purchased this year by the Lombardini engine company (also of Italy)...Lombardini wanted to add a good line of gas engines to their product offering (Lombardini had offered a few gas models in the past through their “Intermotor” brand, but these were very old-fashioned and not very well received)...and since Lombardini already has a North American import facility near Atlanta, GA, they decide to close down the ACME North America facility in MN. (for irony, see 2008)

### **1997: Grillo tries again**

Around this year, Grillo begins selling two of their walk-behind tractor models to the Ardisam company of Wisconsin, who paints them red and markets them under the “Earthquake” brand. They have only marginal success with this endeavor, as Ardisam does not really understand the walk-behind tractor concept; they are a “lawn and garden” equipment company, not a “small agricultural equipment” company.

### **1998: Earth Tools moves to Kentucky**

After marrying a Kentucky beauty, Joel sells the BCS dealership in Indiana to a friend and moves to Kentucky, where he starts a new dealership under the name **Earth Tools** (instead of “Earth Tools & Goods”).

### **1998: Homegrown implement development**

In 1998, Earth Tools works with Holland Transplanter in Michigan to develop a plastic mulch layer to fit a walk-behind tractor. The initial model only lays 2-foot-wide plastic, and is not very popular. Finally, Holland brings out a 3-foot model, which sells better but still only works on flat surfaces (not on raised beds). With slow production and lack of innovation from Holland Transplanter, Earth Tools decides to start their own production of plastic mulch layers in 2014, soon producing a 4-foot model that works on 30” raised beds. (In 2018, BCS America contracts Earth Tools to build 4-foot mulch layers for them...this lasts until 2021, when BCS switches to a Mennonite manufacturer in PA who also builds their Compost Spreader)

### **1999: BCS buys Pasquali**

BCS Italy buys another of their Italian competitors, Pasquali. BCS discontinues virtually all the equipment Pasquali manufactured (walk-behind and 4-wheel tractors) and replaces them with BCS / Ferrari machines painted yellow. BCS purchased the Pasquali brand because of the good market penetration this brand had in certain European countries (Spain, particularly).

### **1999: BCS America LLC**

In 1999, the decision is made by BCS Italy to shut down their North Carolina import-facility (BCS had been losing money in the NC location for years because of poor management). Instead, BCS offers the “import rights” for BCS equipment to several existing BCS regional distributors.... Portland, Oregon-based Estey Distribution, the parent company of Lucky Distributors (The BCS distributor for the Northwestern USA) makes the successful bid for the contract and establishes BCS America LLC as one of its subsidiaries. This arrangement is much more profitable than the factory-owned BCS import facility in NC, as Lucky Distributors already owns existing buildings/infrastructure, and has a full staff. Only a few additional hires are needed to cover the extra workload of being the BCS importer.

### **1999: Grillo is still trying**

Still looking for “the right company” to import their products, **Grillo** sets up an exhibit at the National Farm Machinery show in Louisville, Kentucky, where they meet Joel Dufour of Earth Tools. Joel’s company is not big enough to think about becoming a direct importer yet, but Joel knows of the history between Grillo and BCS, and files the Grillo info away as a future potential “second” tractor line to represent.

### **2001: Eye-opening trip for Earth Tools**

In September of this year, Joel Dufour and wife Christina travel to Italy for the first time to visit a major agricultural equipment trade show (and to be tourists, too!). Joel is amazed at the wide variety of walk-behind tractor brands produced in Italy (about 16) and even more impressed with the number of independent implement brands and types produced to fit the walking tractors. Joel quickly learns that the majority of implements to fit walking tractors are produced by independent, specialized implement manufacturers ... NOT by the tractor companies themselves. (The tractor companies produce *some* implements, but it is also common for the tractor companies to simply purchase and private-label other manufacturers' implements as "their own"). As a result of this trip in 2002, Earth Tools begins to directly import and promote several new [to the USA] implement types for Italian walk-behind tractors, such as: **Berta** rotary plows, Palladino flail mowers, CAEB hay balers, Molon hay rakes, Aldo Biagioli toolbar / cultivators, Cadoppi water pumps, and more.

### **2002: Earth Tools takes on more personnel, goes on the Internet**

2002 marks the year that Earth Tools got too big for Joel to handle all by himself: Joel is joined by Shannon and Carole Kington (previously Earth Tools customers, who were so impressed by the walk-behind tractor equipment they bought for their small farm that they asked to join the company). Carole convinces Joel that he should "enter the 21<sup>st</sup> century" and put up a website. Joel writes all-original text for a 7-page website, and the Earth Tools internet presence begins ... (somewhere on page 8 of Google, probably). Earth Tools also moves from Joel's home property onto land leased from a neighbor, since Joel's land is rather inaccessible for delivery trucks and has limited expansion space. Over the subsequent years, Joel continues to add original content and photos to the website, and by 2008 it is ranking in the top 3 of Google...and there was *never a dime paid* to get "higher search rankings"; the ascension through the rankings was purely on the merits of the site. By 2010, the Earth Tools website is firmly at the top of the "non-sponsored" listings on Google for the search "walk behind tractor".

### **2002: Earth Power Equipment**

Bob Daniels leaves the Mainline company (which is going downhill fast) and starts his own business to import walk-behind tractors: Earth Power Equipment. He imports mainly the Goldoni brand tractors and implements. This venture is a partnership with his cousin.

### **2003: Mainline's end**

By 2003, Mainline's revenue was so low, they only had one part-time employee after Bob left (above)...Midway through the year, that fellow is let go as well. The "heir" Paul Sullivan Jr. lives in Virginia, far from the Mainline facility in Ohio, and he does not have much interest in moving all the stock to Virginia, much less the time to run Mainline (and he doesn't know what 80% of the stuff remaining on the shelves is, anyway!). There are still warehouses full of product at the Mainline facility in Ohio ... this is the "dregs"...equipment that hasn't sold in 30 years. Paul Jr. invites Joel and Shannon from Earth Tools to come and inspect the remaining inventory and make an offer on it. They do, and since 90% of the stuff needs to go directly to the metal recycling yard (everything sellable has been sold, and no "current" stuff is left!), the offer is pretty low. Paul Jr. says no deal, as he thinks it is worth 5 times more. No deal is struck, and the goods stay in Ohio for now. Eventually, some of it is sold for scrap.

### **2003: Earth Tools tests Grillo products**

Since walk-behind tractors are the focus of their business, Earth Tools feels that the time is right to consider an additional brand to offer in North America, both to offer their customers a wider selection of products, and to "keep BCS honest" by having a bit of competition. Earth Tools brings in two Grillo machines for testing and evaluation.

## **2004: Grillo is Go!**

Test results being favorable, Earth Tools goes forward with their first small order of Grillo walk-behind tractors to offer in the 2004 sales season. First models brought in are G85 and G107.

## **2004: Honda engines**

Since 1992, BCS America had been selling BCS machines with a mixture of Kohler and Briggs & Stratton engines. In 2004, they switched to Honda engines for all BCS sales in North America (NOTE: Earth Tools had been offering Honda engines as an option since 2002).

## **2004: Diesel engine EXPLOSION**

Hurricane Katrina wreaks havoc in the south, and fuel prices in North America hit an all-time high of around \$4/gallon. Suddenly, people are much more interested in fuel efficiency, and since the small diesels powering walk-behind tractors use less than half the fuel of their gasoline counterparts, diesel sales on walk-behind tractors **quadruple** within this year (Earth Tools diesel sales go from 10% of total sales to 40%). Since Earth Tools is the only walk-behind tractor dealer offering a diesel option in North America at that time, this boosts the overall market awareness of Earth Tools. Some other BCS dealers even buy diesel-powered machines from Earth Tools, to be able to offer them to their customers as well.

## **2005: BCS takes a lesson from Mainline**

Ready for a lighter-weight walk-behind tractor (that you can actually get parts for easily in the US!), Eliot Coleman contacts BCS America. BCS jumps on the opportunity to supply one of their machines to the “gardening celebrity” (since Eliot has had several books published), making Eliot a VERY good deal on one of their new (at that time) models, the BCS 732. Unfortunately, this recommendation by BCS is a bit undersized for a typical market-gardener, and Eliot later purchases a BCS 749 from Earth Tools. Eliot also asks Earth Tools to come up with a design for a “bedshaper” that will make a 30” wide mini-raised bed. Earth Tools does so, with the prototype going to Eliot. After refining the design, Earth Tools gets Aldo Biagioli of Italy to manufacture it for them.

## **2005: Kingtons exit Earth Tools**

Already retirement age when they joined Earth Tools, Shannon and Carole Kington decide to retire this year.

## **2006: Earth Tools expansion, Berta exclusivity**

In September of 2006, Earth Tools breaks ground on what will become their “main operations” building (until now, Earth Tools has been housed in various garages, houses, and barns). The new building is 7500 square feet, and Joel foolishly thinks “this is all the space we’ll ever need!” (we have more than double that space now). Earth Tools continues to add new implement types to their offering, to make the tractors they represent more useful to small landowners and farmers. This year the **R2 Rinaldi power harrows** and Bell wood splitters are added to the Earth Tools product offering.

In July of this year, the Berta company (producers of the famous **rotary plow**), pleased with Earth Tools’ performance, grants exclusive rights to Earth Tools to represent the Berta products in North America. (NOTE: In November of this year, BCS America decides they want to offer the Berta rotary plow to their dealer network, due to the growing popularity of this implement. Because of the exclusivity agreement between Berta and Earth Tools earlier in that year, BCS America

has to buy the plows through Earth Tools, an arrangement that lasts until 2015, when BCS Italy begins buying the Berta rotary plows directly from Berta and private-labeling them as the BCS “Groundblaster” – the same tool with a different paint job).

### **2006-7: The demise of Earth Power Equipment**

Around this time, Bob Daniels’ (formerly of Mainline) business endeavor with his cousin comes to an end, as the cousin has apparently been siphoning the money out of the company unbeknownst to Bob. Without working capital, Bob is forced to close the business.

### **2006-7: BCS America & diesel**

Tired of getting calls from many of their dealers saying, “How come Earth Tools is selling BCS with diesel engines, and **we** can’t get them that way?”, BCS America decides to start offering a diesel option in North America again, since the market now wants it. In private consultation in late 2006, BCS America informs Earth Tools of this decision to offer diesels in the 2007 sales season. Earth Tools says, “Great! This will save us a lot of work mounting these diesel engines!” and goes on to tell BCS which Lombardini engine model they have been using. BCS says thanks, but that they’ve already decided to use a Yanmar diesel instead. (Yanmar, a Japanese company, had recently set up an assembly plant in Italy for the air-cooled, single-cylinder engines, and they were offering very aggressive pricing). Earth Tools says, “Well, we don’t know much about Yanmar, but we do know these Lombardini diesels work great, and they are very well adapted to the BCS machines!” BCS says they feel Yanmar has better name recognition and more of a widespread dealer network for parts sales. Earth Tools says, “OK, we’ll try some...”

### **2007-8: BCS America begins going “dealer direct”**

BCS America decides to reverse the decision made back in 1987 to deal through regional distributors, and these distributors are systematically eliminated in most regions of the US over the next few years. In areas where distributors have been cut out, BCS sells direct to retail dealers. They also establish an Eastern-USA warehouse to help reduce shipping transit times for Eastern dealers.

### **2007-8: The Yanmar experiment**

Earth Tools buys and sells 20 of the Yanmar powered BCS 853 tractors (while at the same time still offering the Lombardini diesel option, since the Yanmar are yet un-proven). Some problems are quickly evident: The Yanmars are significantly heavier AND have less power than the Lombardini, so the power-to-weight and balance ratio of the machines is negatively affected (too heavy of an engine makes proper implement counter-balancing more difficult and expensive, having to employ implement weights and PTO extensions). Other problems come to light as well, such as the safety/shutdown control system on the Yanmars being essentially cobbled together for a walk-behind tractor application (whereas the Lombardini diesels have control systems expressly designed for walk-behind tractors), causing usability and reliability problems. After 20 units, Earth Tools says, “NO THANKS! We’re just going to offer the Lombardini diesels; we want something that will actually WORK for our customers. NOTE: Ironically, in 2008 Lombardini is purchased by the Kohler engine company of America, who wants to add the Lombardini diesels to their offering. Suddenly, Lombardini/Kohler diesels have a dealer/service and name recognition network over **5 TIMES AS LARGE AS YANMAR!**

### **2008: Kohler buys Lombardini**



The American engine company Kohler, wanting to add a line of small diesel engines to their product offering, buys the Italian engine company Lombardini. Along with Lombardini, Kohler inherits all the engine brands Lombardini has purchased over the years: Ruggener, Cotienne, Slanzi...and ACME. Since Kohler already produces their own gas engines, the ACME line is scrapped...but most spare parts continue to be produced (for now).

### **2008: Jean-Martin Fortier**

In the spring of 2008, unknown and aspiring Canadian market-gardener Jean-Martin Fortier purchases a BCS 853, R2 Rinaldi power harrow, Berta rotary plow and Flail mower from Earth Tools. Like many of Earth Tools' customers, he proceeds to operate a successful organic market-garden using only walk-behind equipment in subsequent years. However, unlike most of Earth Tools' customers, he is: **A.** An excellent record-keeper, and **B.** A great writer and charismatic speaker! He eventually chronicles his success in a book called **The Market Gardener** (published in French in 2013 and in English in 2014), which becomes a runaway best-seller within the gardening / sustainable agriculture / local foods movement, inspiring many young people across North America to begin small-scale farming ventures. (Jean-Martin was also kind enough to mention Earth Tools in his book! 😊)

### **2009: Earth Tools “generates” another implement**

Pun intended ... This year, tired of waiting on BCS America to produce one, Earth Tools starts assembling their own electrical generator implement to offer for the BCS and Grillo walk-behind tractors. BCS had been promising a generator since 2005. (As of 2022, they still don't have one!!)

### **2009: Berta flail mowers**

The Berta company of Italy, producers of the famous Rotary Plow, decides to start producing flail mowers as well, and sends a prototype unit to Earth Tools in Kentucky to test. After some trials, Earth Tools makes an important re-design suggestion to Berta: Add a removable “baffle” that allows the user to dictate whether the mower shreds the material fine (baffle installed) or coarse (baffle removed). Berta does this, and this feature, combined with Berta's legendary quality, gives Berta the finest flail mower on the market for walk-behind tractors. By now, BCS is also producing their own flail mowers (Bladerunner and Rollerblade ... where they come up with these names I'll never know), but the features and quality never quite meet the standards set by Berta.

### **2010: Forward: Earth Tools “wannabees”**

Emboldened by the success of Earth Tools and the increasing popularity of small-scale farming, several business enterprises emerge across North America on various scales, trying to mirror what Earth Tools does. Unfortunately, lacking the experience and knowledge base Earth Tools draws from, many of these endeavors have already folded as of this writing. (Not that the market is shrinking – Earth Tools sales continue to grow 5-10% per year!)

### **2011: BCS & Kohler diesels**

After finally getting rid of their stock of Yanmar-diesel powered 853s, BCS America (belatedly) follows the advice of Earth Tools and brings in model 853 (and some 749) tractors powered with Kohler (Lombardini) diesels. Unfortunately, that is short-lived, as in 2015 the US EPA will introduce new emissions restrictions that will keep the type of diesel engines used on walking tractors from entering the North American market. Earth Tools sees this coming, and in 2014 orders **150 diesel units** for future sales (as long as they came into the US before the “cutoff date,” they are “grandfathered in” and perfectly legal to sell). These are all sold by 2020.

### **2012: BCS “PowerSafe” clutch system**

Due to a new safety standard enacted in the EU (European Union) in 2011, BCS is forced to re-design the clutching system on all their walk-behind tractors that can operate soil-working implements. While most other European walking-tractor companies choose to comply with this new standard by simply redesigning their standard “dry-clutch,” BCS decides to take a risk and invest in engineering a complex “wet-clutch” system that they brand “**PowerSafe**.” This new clutch system is introduced in Europe on all their “700 series” tractors in 2011, and in North America on one tractor model (the 740) in 2012. BCS sets a milestone as the first Italian producer of walk-behind tractors to use a hydraulically-driven wet-clutch system. PowerSafe system boasts longer life (remains to be seen, but is plausible), abuse-proof (it is impossible to “ride” this wet-clutch and subsequently overheat it), and, BCS argues, it is safer, because when the operator lets go of the “safety” lever on the handlebars, the power to all tractor functions disengage immediately (but the engine does not quit, as previous “safety” systems have done). As “the other side of the coin,” though, downsides include: Much more complicated design that is not owner-serviceable if the clutch fails, more frequent transmission oil changes (and oil filter changes, since this system employs an oil filter for the wet-clutch oil pump), “jerkier” operation (since the ride-proof design means the clutch is either on or off... no in-between), and less effective steering brakes due to the repositioning of the brake levers on the transmission on the PowerSafe models. BCS also continues manufacturing their standard dry-clutch (which is the same basic design they have used for 40+ years) for sales in countries other than the EU (including North America).

### **2012-15: Thivierge in Canada**

Starting in 2012, Benoit Thivierge of Les Equipments Thivierge (a BCS dealer in Quebec, Canada) started purchasing implements such as R2 Rinaldi power harrows, Aldo Biagioli cultivators, Berta rotary plows and flail mowers, etc. from Earth Tools. Later, inheriting a machine shop from his father, he started his own production of some implements, most notably a power harrow, which he branded as “Clovis.” In 2015, after repeated requests from their dealers for a power harrow (because Earth Tools and their customers had created a demand for them), BCS America was ready to add a power harrow to their implement offering in North America. Inexplicably, they chose the Thivierge/Clovis harrow over the R2 Rinaldi, even though the R2 had an established reputation and tougher construction (chain-drive on the Clovis vs. gear-drive on the R2). Part of the reason was undoubtedly that Earth Tools had entered an exclusivity agreement with R2 Rinaldi in 2014, and BCS America did not want to have to buy through Earth Tools again, like they had to with Berta rotary plows for many years...

### **2014: Grillo develops new model**

Grillo, who has been offering the same basic walk-behind tractors for around 25 years, comes out with a new model in 2014, the **G110**. Grillo engineers got a lot of input from Earth Tools on the design. This model is specifically designed to compete with the best-selling BCS model, the 853. Grillo is suddenly a much stronger contender for the “market-gardening” market segment.

### **2015: Mainline, back from the dead (sort of)**

Paul Sullivan, Jr., now retired, decides he wants to do something to capitalize on the owners of SEP/Mainline machines who have been “starved” for spare parts for 10+ years, and he starts importing some spare parts again. SEP has by now changed hands in Italy, having been sold in 2010 by the original parent company, Valpadana, to a smaller company called Barbeiri. Paul also moves the remainder of the inventory from the old Mainline warehouses in Ohio to where he lives in VA.

## **2007 – Present: BCS America “Copycats” Earth Tools**

They say that “Imitation is the highest compliment” ...and it shows. Over the past several years, BCS America has made a practice of copying many Implements and accessories offered by Earth Tools, either by carrying the identical product or by finding another vendor offering a similar product. It very much appears as if BCS America regards Earth Tools as a “Guinea pig”: If Earth Tools offers a product to fit BCS, they (BCS America) figure that there must be enough “market demand” for it so that they should offer it as well....

### **Examples:**

Earth Tools introduces Rotary Plows to fit BCS to the USA in 2002; BCS America adds them to their line in 2007

Earth Tools introduces Flail Mowers to fit BCS to the USA in 2002; BCS America adds them to their line in 2009

Earth Tools introduces Power Harrows to fit BCS to the USA in 2006; BCS America adds them to their line in 2015

Earth Tools introduces Hay rakes to fit BCS to the USA in 2002; BCS America adds them to their line in 2018

Earth Tools introduces Drag-type cultivators / tuber-digging plows / bedshapers / subsoilers to fit BCS to the USA in 2002; BCS America adds them to their line in 2014

Earth Tools introduces a water pump to fit BCS to the USA in 2002; BCS America adds them to their line in 2018

Earth Tools introduces Plastic Mulch Layers to fit BCS in 1998; BCS America adds them to their line in 2018

Earth Tools introduces actual “Snow” blades to fit BCS in 2004; BCS America adds them to their line in 2007

Earth Tools introduces a Box End Kt for the BCS Dozer/Scraper blade in 2003; BCS America adds them in 2019

Earth Tools introduces “Barbell Weight Hangers” to add wheel weight in 1998; BCS America adds them in 2018

*You’re welcome, BCS!*

## **2018: New Ownership of BCS America**

John Jansen, who has been president of BCS America and dictating their direction for several years already, buys BCS America outright from the Estey distribution group. In 2019, they move to a new facility (one not owned by Estey) in Oregon City (still in the Portland Oregon area.).

## **2018: The BCS “PDR” and Earth Tools “TDS”**

In 2015, Earth Tools started work on a prototype accessory: a full-width roller to go behind the tiller implement. This device would have the functions of giving very precise depth control, and tamping/levelling the seedbed perfectly. Earth Tools had a summer intern that year, and during his stay he came up with the first prototype of this item. Earth Tools tested it, and found that it needed some work...and then the intern left, and the project got “shelved”. In a conversation with BCS America, Earth Tools owner Joel made the mistake of mentioning that Earth Tools was working on this device...and further made the mistake of not getting it back OFF the “shelf” in any hurry. The result was that BCS America went to work on it themselves, and actually got it on the market first...the BCS America “PDR” (Precision Depth Roller) was introduced in late 2018, at a retail price of \$995. Joel at Earth Tools took one look at the price and said “We can build a better one for less. Let’s get it back off the shelf!” 3 prototypes later, the Earth Tools TDS (Tiller Depth System” was born (or, really, re-born), at a retail price of \$650 at the time. The Earth Tools version installs quickly and does not require any modification of the tiller, unlike the BCS version.

### **2018: BCS introduces their first “Hydro” machines into the USA**

With the acquisition of the Ferrari tractor company, BCS now has access to a bunch of engineers who think “hydro” as well as “gears”. The result is that “hydro” systems are working their way into some BCS models...but since the Italians can’t seem to get “gears” out of their blood, these are very much “hybrid” machines, combining a hydrostatic and gear drive. The first model of this type introduced to the USA is the 660 in 2018, which is a “front-PTO-only” machine for specialized mowing applications. Since then, BCS has brought in the model 770 Hydro (in 2020), which was replaced by the 779 in 2022.

### **2021: The complete end of Mainline; Earth Tools gets rights to import SEP parts**

Paul Sullivan Jr. is 75 years old now, and decides he wants to completely retire. He agrees to sell all of the remaining parts inventory to Earth Tools for a reasonable price, and the goods are moved from VA to KY. As expected, a good percentage of them go directly to the recycling center, because they are super-old stock that has no market value. But there is plenty of “saleable” inventory, and are some nice finds of “discontinued” parts as well, that will keep many an old machine running. Paul Jr. also releases the “exclusivity” agreement he had with Barbieri in Italy (the current owners of the SEP brand), so now Earth Tools can directly import spare parts for the old SEP machines and take care of those customers.

This document relates the experience, views and opinions of Joel Dufour, owner / founder of Earth Tools. Anyone is free to disagree or have their own views if they choose; that’s the beauty of a free country. Any errors with dates, etc. are accidental...most of this is from memory. This document will be updated when we have time available to do so...