

Virginia Horsemen's Benevolent & Protective Association

Synthetic Surfaces

For nearly a hundred years horses in America trained and raced almost exclusively on dirt tracks. Not any longer. The 21st century ushered in synthetic surfaces for both racing and training.

Turfway Park and Keeneland led the way by switching from dirt (actually a mixture of sand and clay) to what is commonly called polytrack, a generic term for a combination of silica sand, wax, synthetic fibers, and recycled material. In 2006 Woodbine and Hollywood Park followed suit. Del Mar and the other California tracks are doing the same this year, and so is Arlington Park.

Many training centers also switched to synthetic materials, including the Fair Hill Center in Maryland, which last November replaced its wood chip track with Tapeta, Michael Dickinson's brand name for his version of an artificial surface.

There are several American and English companies that produce and build synthetic tracks, but with minor variations the process and materials used are basically the same. A unique type of foundation that allows vertical drainage is the key feature of all installations. Several inches of dense stone are placed around and over drain pipes to form the lowest part of the base. A porous course of asphalt is laid on top. Then anywhere from eight to twelve inches of carefully proportioned and mixed silica sand, synthetic fibers, and recycled material, bound together with a water repelling wax emulsion, is spread on the surface. About half of that material is compacted while the top portion is left loose.

The resulting surface is uniformly flat, drains well, does not wash away, and does not freeze. Most importantly for horse and rider it provides a bouncy cushion that is smooth and consistent throughout. The dirt track experience of hard spots, soft spots, bias, and bad steps is gone.

Two members of the VHBPA's Board of Directors, Diana McClure and Jim Carter, noted the new technology and incorporated it in their Virginia operations.

Last summer McClure and her husband, steeplechase jockey Michael Cooney, transformed a hundred acre cattle farm in Berryville into DMC Carousel Stables, a first class training and lay up facility for

thoroughbred runners and jumpers. Among other improvements the couple turned a hay field into a five furlong training track, with a synthetic surface, a one furlong chute, and a starting gate.

For the track Attwood Equestrian Surfaces motor-graded a twelve foot wide oval path in the field, placed horizontal drain pipes at various locations, and covered the compacted dirt with a fabric membrane. Six inches of porous asphalt was laid over top. The cushion—another six inches of sand, wax, fibers, and elastomeric polymers -- was mixed on site and then applied to the asphalt.

Attwood spread the same top cushion mix over a six inch base of stone dust in McClure's large indoor arena where she schools jumper prospects. That facility, of course, did not require a drainage base like the outdoor track.

McClure and Cooney initially chose synthetic materials for the training track because they wanted a stable, consistent, all-weather surface that required little maintenance. Their experience over the past eight months has more than met expectations.

The track condition remains constant through summer heat, severe rain, winter freezes, and snow. And unlike a dirt track, which requires daily maintenance, Cooney harrows their track once every two weeks with a special implement that fluffs up the top two inches. The track does not require watering.

The indoor arena surface likewise is virtually maintenance free and dust free.

An unexpected but most welcome benefit from the synthetic surface has been the response of horses. According to McClure, *"our horses love it, probably because of its bounce and smoothness. Michael, my Irish husband, says it rides like a good grass course back home."*

McClure also says horses remain much more sound training on the surface because it is easier on their forelegs and gives them more stability in their hind end. She regularly conditions horses sent to her for periods of lay up and rest by other trainers like Bill Turner, Tim Tullock, Nancy Heil, and Ben Feliciano, Jr. McClure finds the results from the synthetic track amazing. Horses body sore from training on dirt quickly take to the artificial surface without pain and without medication. After forty-five to sixty days they are ready to go back to racing with little or no further conditioning required.

McClure is mum about the cost of installing the synthetic surface but says *“it’s worth every dime even though it took a lot of dimes to do it.”*

VHBPA Board member Jim Carter, and his wife Melinda, own Randleston Farm in Bluemont. He started out a few years ago with the modest goal of maintaining a few brood mares on his farm. As is often the case in the horse business expansion “somehow” occurred. Carter now has a newly built spacious stucco barn where he maintains a large string of flat runners and steeplechasers.

About a year ago Carter put in an exerciser with a Tapeta surface. It has about six inches of Michael Dickinson’s formula of silica sand, wax, and virgin fibers applied over a porous cloth that covers the base.

Paul Harriss, Randleston’s farm manager, says the exerciser is used every day twice a day. Even with severe rain there are no puddles, no slop, and no wash away. *“We haven’t missed one day in the last year.”* He, too, says the horses love the footing.

Harriss did note one problem. The surface has to be leveled by hand regularly because of the narrow traffic pattern within the confined space of the exerciser. He expects to fix that by attaching leveling boards to the bottom of the moving dividers, in effect using the movement of the horses to do the maintenance.

More general information on synthetic surfaces is on the Attwood (www.equestriansurfaces.com) and Dickinson (www.tapetafootings.com) websites.

Welcome to the new century.