



**THE ULTIMATE SURFACE
FOR YOUR FARM RACES**



PRODUCT INFORMATION

CALL US ON 0800 88 55 55

or visit our website www.stockrock.co.nz



GROWING WITH OUR CUSTOMERS

What people say

BRUCE WILTON milks 300 cows on 100Ha East of Morrinsville



"Why did I buy StockRock? Well over the years I have tried several different race materials but I wasn't happy with the number of lame cows we were getting, or the durability of the rock used, so I started looking around for a better solution. Then I came across StockRock.

Initially we started with a few hundred metres out from the cowshed and were so impressed with the results we just kept extending over the years.

I would recommend farmers use StockRock because it works, it lasts well and its great on cows feet. Happy cows make more milk. While the upfront costs are higher, the benefit is that it lasts longer."

FRANK TEAGUE – Contractor - Waihou Excavations, Waikato



"Farmers find it hard to obtain decent brown rock around here so we were looking around for other materials we could use. That's when we found StockRock. What I like about using StockRock is knowing that when you lay it down, you can have confidence it is going to hold up. It's going to be there for the duration.

At the end of the day when we suggest to farmers that they try StockRock, 9 times out of 10 they come back and want more."

IAN UPSON farm owner and sharemilkers Kate and Chris Bedford milk 170 cows on 50Ha in Ngarua, Waikato



"What do I like about StockRock? Everything! I like the fact the cows are happy to walk on it. When the race is not StockRock - they walk single file, whereas on the StockRock areas they spread out all over it.

The benefits we find using StockRock are that we definitely notice a decrease in lame cows and the cows walk faster to the shed. Also less stones and mud are going into the shed. We enjoy the fact it's so low maintenance. You can even take a push chair over it haha (that's handy when you have small kids)."

THE ULTIMATE SURFACE FOR YOUR FARM RACES



What is StockRock™

StockRock is zeolite quarried at Ngakuru, south of Rotorua. Zeolite is a soft sedimentary rock formed by ash deposits in the bottom of lakes. Following seismic events, the ash is compressed and then, activated by geothermal water to produce an "altered clay".

Zeolite has some very unique features which set it aside from other minerals. It has a high Cation Exchange Capacity (CEC) and a very porous structure. This CEC allows zeolites to absorb particular cations (for example, ammonium compounds), hence its use in water filtration and cat litter.

In the case of StockRock, the very open pore structure of zeolite is what allows StockRock to be both durable and soft, making StockRock "The Ultimate Surface for Farm Races".





THERE IS NOTHING AS GOOD AS STOCKROCK™

Key Attributes of StockRock™

VALUE | REDUCED LAMENESS.

The key economic factor for purchasing StockRock is its hard-wearing, chalk-like attribute. Soft enough to break up if walked onto a concrete yard, yet tough enough to provide a long life, and one which binds into a very durable surface.

LIGHTWEIGHT | ECONOMY.

The porous nature of StockRock means more volume per tonne purchased, which translates into more economic farm race coverage for your dollar.

WHITENESS | CLEAN.

Clean, fresh looking farm races improve any farming outlook.

VERSATILITY | WIDER INSTALL WINDOW.

StockRock is shed-stored to ensure dryness and all-year-round availability. StockRock can be installed between rain showers but must be compacted dry to ensure moisture is locked out of the surface.

DURABILITY | CEMENTED SURFACE.

The gradation of manufactured StockRock produces a very bindable layer which when laid according to our specification, produces a long lasting, soft, working surface.

CREDIBILITY | SLEEP EASY.

StockRock has been successfully installed on farm races from Northland to Taranaki for over 10 years, with an enviable track record. For more endorsements from farmers, go to www.stockrock.co.nz.

SUSTAINABLE | ON-GOING AVAILABILITY WHEN YOU NEED IT.

The zeolite quarry is operated under strict resource consent guidelines year-round, and has sufficient reserves for the next 80 years.



FARM RACE IN WET CONDITIONS BEFORE STOCKROCK IS LAID



STOCKROCK INSTALLATION



COMPLETED STOCKROCK FARM RACE



Say 'Goodbye' to Lame Cows

High rates of lameness in dairy cows are associated with uneven and deteriorating race surfaces. Penetrating wounds, bruised or worn soles, and white-line disease are commonly attributed to :

- ▶ Soft hooved cows treading on sharp stones on tracks, or small gravel pieces carried on to the concrete yard;
- ▶ Cows with soft hooves turning and standing on concrete;
- ▶ Cows walking long distances;
- ▶ Soft hooves turning on concrete causes a thickening of the white line, where small cracks develop, allowing small stones, grit and bacteria to invade internal hoof tissues.

Lameness can cause a decrease in the cow's ability to graze, a loss of milk production (and income), lowered reproductive performance, an increase in the chance of being culled, and the additional costs of veterinary treatment.

Dairy NZ provides an online Healthy Hoof Lameness calculator to assess the financial impact of lameness and the potential economic gains by reducing lameness.

Cost of Lame Cows*

| Loss of income from | \$ per lame cow | \$ per farm |
|---|-----------------|-----------------|
| Loss of milk solids production (@\$5.80kg/MS) | 452 | 18,080 |
| Cost of treatment <small>(by farm workers and/or vets), culling, wastage (discarded milk)</small> | 560 | 22,400 |
| Impact on reproductive performance <small>(decrease of six-weeks in-calf rate, and empty rate)</small> | 111 | 4,440 |
| Total \$ LOST THROUGH LAMENESS | \$1123 | \$44,920 |

** This example is based on a 400 cow herd with 10% lameness.*

When StockRock is applied to farm races, cow flow to and from the shed is dramatically improved and herd lameness is reduced. The StockRock race surface is smooth and durable. Farmers find that sharp stones no longer turn up in the yards. No sharp stones means reduced incidence of stone bruises and hoof infections.

StockRock races laid at the recommended 120mm compacted depth around the cow shed reduces the number of lame cows in your herd, and results in increased production and profit for the farm business.



USING STOCKROCK™ MAKES SENSE

Choose StockRock™ for economy

StockRock capping material is both chalk-like and hard-wearing. Its porous nature means a purchased unit load of StockRock will provide more surface cover than alternative product.

Common alternatives include :

Pumice, which like StockRock is lightweight and soft, but unlike StockRock, cannot be compacted and sealed. Pumice will not last. Rhyolite, which is readily available, is suitable to use as a base material but requires capping to prevent erosion and scouring.

Brown rock and Lime fines are more dense than StockRock, and will therefore cover less surface area when laid at the same thickness. Lightweight StockRock provides more value per tonne in terms of surface coverage.

| | Tonnes per m3 |
|-------------------|------------------|
| Brown rock | 1.5 - 1.7 |
| Lime fines | 1.6 - 1.7 |
| StockRock™ | 0.8 - 1.0 |

StockRock surfaces have a recycle time of 3-5 years, depending on stock intensity and race dimensions. When laid according to our specification, StockRock's durability makes it a viable economic choice for your farm races.



A smooth transition from race to cowshed



Cross section of compacted StockRock™



BEFORE



AFTER



Choose StockRock™ for year round availability

Zeolite is stored in covered sheds at the Ngakuru Quarry, to ensure year-round consistency in StockRock moisture levels and grade quality for spreading.

The StockRock INSTALLATION GUIDE provides a step-by-step procedure for applying and compacting StockRock. The procedure requires installation when dry, so that the finished surface is not just gentle on hooves, but long-lasting as well.



Grade: SR100 Topsize: 100mm

SR100 is StockRock grade 100mm which is used for the first 200 metres from the cowshed or any hard wearing parts of the race. SR100 is laid at 180mm and compacted to 120mm finished depth. A 30 tonne unit load covers 170sqm area.

Guide to estimating your required tonnage

Measure the high pressure area to be covered;

example:

100mx5m of farm race = 500m²

Multiply the area 500 m² x 0.18

Total = 90 tonnes.

NOTE: The 0.18 factor gives the loose, uncompacted volume required for spreading SR100 at 180mm. This volume will compact to 120mm when rolled and sealed.

Most road haulage contractors cart 29 – 30 tonnes, so for efficiency, order your StockRock to the nearest full unit load.

Use the StockRock Calculator on our website
www.stockrock.co.nz/calculator

An easy way to estimating the cost for the supply-only option of StockRock for your farm race.

Or contact a StockRock representative at 0800 88 55 55 to discuss supply-and-delivery, or installation options for StockRock.



LAY IT ONCE, LAY IT RIGHT!

Steps to a Successful Installation

When laid correctly, a StockRock farm race will provide a farmer with a high quality, soft, long-lasting, working surface. The investment made in a StockRock surface will be rewarded if the installation procedure specified below is followed.

1. Order the appropriate quantity of StockRock. An online calculator is available on www.stockrock.co.nz
2. Mark out and measure the area for installation.
3. Scrape the marked area clean, removing all soft material, mud and potholes.
4. Rip and re-shape the existing race to ensure the surface is evenly contoured, fence to fence.
5. Lay StockRock on full width of the race, fence to fence.
6. Track roll, then compact StockRock with a 4-tonne roller to finish.

For installation advice
PHONE 0800 88 55 55





How to lay StockRock™ on Existing Farm Races

1 Measure

Mark out the area to be covered. Measure fenceline to fenceline.

A minimum uncompacted thickness of 180mm must be maintained over the full width of the race.



2 Clean & Clear

The area must be scraped clean, removing all soft material, mud and potholes, before StockRock™ can be successfully installed.

Edges against concrete must be rebated by 300mm to allow for a good wearing strip.



3 Reshape

Using a grader, rip and re-shape the race surface so that the camber on the race is approximately 3–6% from the centreline.



4 Lay

Once the existing race has been cleaned off and each end has been rebated for the wearing strip, spread StockRock™ at **180mm depth, fenceline to fenceline, full width of the race.**



5 Track Roll

It is recommended to track roll the surface once shaped, prior to compacting with a roller. We do not recommend using a tractor and blade only.



6 Compact

Compact using a 4-5 tonne vibrating roller, minimum 4 passes over each section of the race. The **finished compacted depth of 120mm must be maintained over the full width of the race.**





STOCKROCK™ LOOKS GREAT

Finished StockRock™ Farm Races

You can choose to use a watercart to soak the race surface and help speed up the natural cementing process. Once cemented, StockRock™ lasts.



Finished StockRock™ race.



StockRock™ race in use.



Farm shed entrance.



Cross Section of a StockRock™ race.



USING STOCKROCK™ MAKES SENSE



How to repair StockRock™ Farm Races

Some areas may wear more quickly than others. In this instance, repairs can be made simply and quickly using an excavator and roller, without ripping up the entire race.



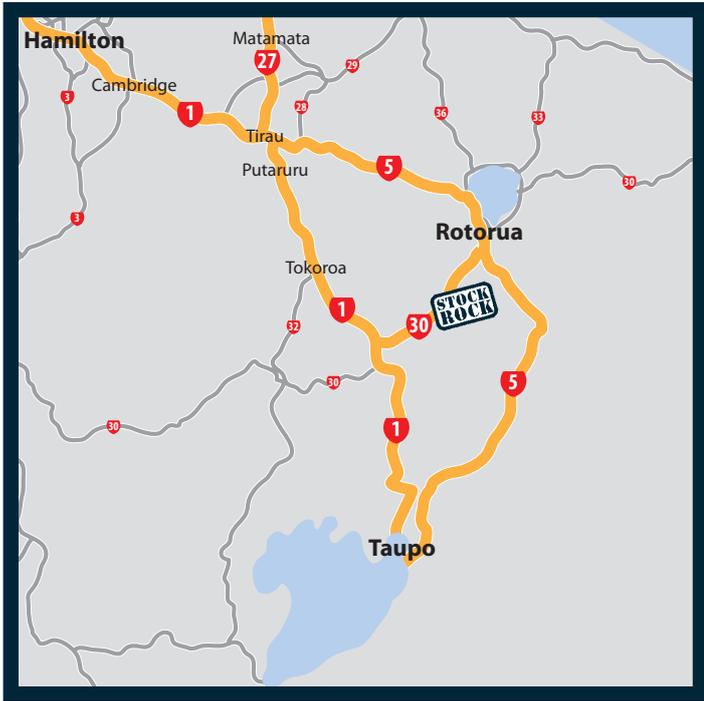
Simply cut out the area similar to how you would replace a piece of concrete, and replace with new rock.

The key here is to make sure you excavate back far enough into the base layer so the repair is 'keyed' into the existing layer, and so you have minimum of 120mm compacted thickness.

For installation advice
PHONE 0800 88 55 55

THE QUARRY

223 Twist Road, Ngakuru, New Zealand



The zeolite quarry is operated under strict resource consent guidelines year-round, and has sufficient reserves for the next 80 years.

StockRock™ is a trademarked Blue Pacific Minerals Ltd brand.

