

## **Vetiver Planting Guide**

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<http://www.vetiver.org> – <https://www.erosionqld.com.au>

Vetiver, *Chrysopogon zizanioides*, is a sterile, clumping C4 grass that originated in India with approved cultivars having spread throughout the globe, mostly in tropical and semi-tropical areas. Applied as the Vetiver System (VS) and guided by The Vetiver Network International (TVNI), the Vetiver System is predominantly used in the following applications:

- farm soil and water conservation;
- slope stabilisation of public infrastructure (e.g., roads, railways, canals, rivers, construction);
- prevention and treatment of contaminated domestic and industrial waste water;
- reclamation of toxic mine-tailings and polluted industrial land;
- disaster mitigation (e.g., stabilising potential landslide sites, dikes and levees, dampening wind scour, and area protection against flooding);
- soil improvement, wetland and marginal land restoration, and crop pest control;
- renewable natural fibre for handicraft production, mulch, and thatch, etc.
- bio-fuels

Source: <http://www.vetiver.org/>

This document is a pictorial guide to one method of planting Vetiver Grass as described in the Vetiver System. For further information on other planting applications, please visit the [Vetiver Website](#). For updates and discussion, use the [Vetiver Blog](#), [Vetiver Facebook Group](#), or [Vetiver Forum](#).



*Figure 1: 3 recently planted hedges with bareroot slips on a paddy wall.*



*This guide is intended to illustrate one method of planting Vetiver with bareroot slips. This is not intended as an exhaustive guide, nor may it be correct from the perspective of another user of Vetiver. There are many methods to planting Vetiver. The main thing to remember to build an effective hedge as per the Vetiver System is to place the plants approximately 10-15cm apart at all times.*

## **1. The Planting Site**

Select the site and determine the hedges required. In this particular instance being a grassed wall, hedges have been chosen to be close together to prevent/suppress other grass from growing on the wall to reduce regular pasture grass-cutting maintenance. To determine hedge requirements, check out the information of the [Vetiver Website](#). Sites that struggle to grow plants may use potted stock instead of bareroot slips which may provide a better outcome.



*Figure 2: A paddy wall covered in mostly Setaria Grass that is sporadically brushcut during the growing months.*



## 2. Prepping the site

To reduce weed competition with the newly planted Vetiver bareroot slips, I choose to hoe away the pasture grass competition using a short hoe (easier to manipulate on slopes). This is a shallow hoe technique to attempt to only remove plants rather than topsoil. The grass and weed crowns ideally are removed before planting to prevent unwanted grass from growing immediately in the new Vetiver hedge. Solarising or chemical application could replace this step.







*Figure 3: Setaria Grass crowns still visible in soil after hoeing.*



### 3. Digging your planting furrow

Next up a V-furrow is dug with a mattock on or near to contour in this application. Try and batter/angle the back edge of the furrow on a slope, rather than make vertical cuts into soil. Often only one full strike is needed in the middle of the furrow and smaller strikes/scrapes on the back of the batter can increase width to avoid creating larger clods of soil and reduce effort.







*Figure 4: Continue V-furrow as long as required.*



#### 4. Planting the bareroot slips

Lay out the slips along the furrow that has been created. Small groups 2 arm lengths apart can make reaching more plants easier.



*Figure 5: Slips soaked for 4 days are showing new root growth.*



To help create a planting terrace to make watering and planting easier, push any excessive soil on the downside of the furrow back up into it. Breaking up larger clods with the hands and sieving the soil with open fingers will remove any unwanted grass roots and plants. Guide/place the larger clods and debris on the lower side to help create a bank.





After sieving the soil and, if possible, breaking up some of the clods, a flat 'seedbed' is created of loose, friable soil. This is visible below. This step is not necessary but it does remove any unwanted plants and makes planting the slips easier to pack soil around the roots to prevent air gaps.



*Figure 6: A freshly created 'seedbed'. Untouched area behind it.*



Using the back edge of your furrow (which should be a smooth, angled batter), insert your dominant hand (not my left hand as pictured) as deep as you can get it and pull the friable soil up and towards you, leaving a hole behind your hand. Put a slip into this hole, remove your hand, and guide the removed soil around the sides and into the back of the hole. Press/compact the soil around the slip to prevent animals like cows or kangaroos from pulling the plant out easily. Cover the crown with soil, don't plant too deep.







*Figure 7: The initial digging hand would still be in this hole as the slip is placed behind it.*





Spacing the slips is the integral foundation of a good Vetiver hedge. In the field, using a fist is the optimal spacing. Always plant closer than a fist, never further apart.





Using a knife, small mattock, or trowel can help start a hole when fingers cannot penetrate the soil when using the back batter as a guide.



Smaller non-standard slips (one tiller) can be grouped together as below, or added to other slips.





A finished hedge. The building of the terraced area with a lower bank of material/soil allows water to flow back towards the plants reducing water requirements and run-off.



*Figure 8: Shape of flattened terrace. Irrigated water should not run off. Excessive rainfall may.*



Now water the hedge if no rain is immediately forecast as it helps the soil settle in the pore spaces and around the crown of the slip to encourage it to establish faster. Irrigate enough to keep the soil moist for at least 2-3 weeks while the slips send out new roots from the crown.

For more information about Vetiver you can visit my site, [Erosion QLD](#), or access the [Propagation Guide](#), or [Frequently Asked Questions](#). Thank you.



*Figure 9: Almost completed paddy wall. The shorter middle hedge is to reduce the distance between top and bottom hedge for better suppression of bank through shading.*