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1. Introduction of Vetiver Grass

Botanical Name

Vitiveria Zizanioides (L.) Nash

Origin

- V. Zizanioides Asia - subcontinent
- V. Nigratana Southern Africa
- V. Nemoralis South East Asia

Applications

1. Soil and water conservation
2. Land and embankment stabilization (mining and civil construction)
3. Aromatic oil from roots for perfume industry and as pest repellent
4. Thatching and mat/basket weaving
5. Fodder (when properly managed)
6. Rotational crop (to rest fields e.g. in coffee plantations)
7. Mulch
8. Paper making
9. Medicinal/aromatherapy

Vetiver Grass for Bio-Engineering

For the stabilization and protection of infrastructure (roads, railroads, and other construction sites) Vetiver Grass is proven to be effective, efficient, and low when compared to other alternatives such as construction and maintenance using cement, rock and steel. Vetiver grass roots have an Mpa of 75 (1/6 the strength of mild steel) and will improve the strength of soil shear at a depth of 0.5 meters by as much as 39%. The cost of system using Vetiver Grass is approximately 55% to 85% less than the traditional engineering systems.

General Observations

For well-grown vetiver hedges, the result is found to be less runoff and improved groundwater supplies. Dry-season stream flow improves under the hedge system of in-situ moisture conservation.

In most instances on slopes of up to 5%, about 10 cm of slit is deposited behind the hedges annually.

The majority roots of a vetiver plant grow straight down to about 0.3-0.4 m and branch out to a depth of at least 3m. Other roots will grow out into the field up to 50 cm, but they do not significantly affect crop growth in normal year or under irrigation – probably because of the

high moisture content of the soil associated with the hedges. However, in drought time, vetiver does compete with crop plants for soil moisture in the area up to 1 m from the row. Vetiver hedges take about 3 years to be fully effective under low rainfall conditions. If vetiver slips are planted 10-15 cm apart, the hedges will form more quickly. Even where there are gaps, interplant erosion does not seem to be a problem because the roots will join together in the first year to form a subsurface barrier.

Research findings in India at early stage, on both alfisols and vertisols, indicate that rainfall runoff was reduced 40% to 50% (compared with the control), and silt loss was reduced from 25 tons per hectare to 6 tons per hectare (all for 2-year-old hedges on 2 percent of slopes). The time to wilting in one demonstration on a alfisols in-situ moisture conservation measures were applied.

Description

Perennial grass, up to 2 m high, is with a strong dense and mainly vertical root system often measuring more than 3 m. It is by nature a hydrophyte, but often thrives under xerophytic conditions. A tropical plant also thrives in subtropical conditions.

Climate

Temperature

Mean: 18 – 25 °C

Mean in coldest month: 5 °C

Absolute minimum: -15 °C

When ground freezes the grass usually dies.

Growth normally starts above 12 °C.

Hot summer temperatures (25 °C+) required for rapid growth.

Rainfall

As low as 300mm, but above 700mm preferable.

Will survive total drought, but normally requires a wet season of at least three months.

The ideal is well spread rainfall.

Humidity

Grows better under humid conditions, but also grow well under low humidity.

Sunshine

Difficult to establish in shade; when shade is removed, growth is rapid.

Soil

Grows best on deep sandy loam soil. However it will grow on most soil types ranging from

black cracking vertisols through to red alfisols. It will grow on rubble, and both acid (pH3) and alkali (ph11) soils. It is tolerant of high levels of mineral toxicity - aluminium, manganese (550 pm). It will survive complete submergence in water up to three months. It grows in both shallow and deep soil.

Altitude

It is resistant to low temperatures at higher altitudes (>2000m).

Rooting Pattern

The massive root system is generally vertical and non-invasive to adjoining habitat. (Root mass will penetrate into more than 3 m deep in good conditions, and as a mass creates a significant mat barrier below ground. Roots will penetrate through weathering "C" horizon rock material, and will follow cracks in un-weathered rock material. Roots are very strong and have the capacity to bind strata together.

Type of User

Small and large scale farmers, conservationists, water authorities, civil engineers, aromatic and perfume industry, traditional healers, mat and basket weavers, thatchers etc.

Varieties and Cultivars

There are 12 known species of vetiver grass, and hundreds of different cultivars that exhibit distinctive phenotypic differences that can be exploited by users depending on need. For example, thick, stiff stemmed cultivars can withstand high water velocities and probably are best for controlling gully erosion while softer more prostrate cultivars are better for fodder. In Southern Africa a single cultivar of *Vetiveria zizanioides* is available for cultivation.

Propagation

By root division: If plenty of planting material is available in the form of existing hedges then these hedges can be divided. In situations of scarcity, nurseries are required for multiplication purposes. Depending on rainfall and soil one slip can produce from 50 - 100 new slips in six months. Some cultivars have no flowers, others have flowers, but sterile seeds. Others have fertile seeds - the latter type should be avoided.

Planting

Planting of hedgerows should take place early in the wet season when the soil has been well wetted. 2 - 3 slips should be planted at each "station". Each station should be 10 – 15 cm apart. Distance between hedgerows should be at a vertical interval of about 2 m. On flatter land the

vertical interval may be reduced to 1 m. Care should be taken to select good quality slips, and they should be planted within three days of lifting from the nursery. It is better to plant on the day of lifting. Planting slips should not be allowed to dry off and should be protected from the sun. From 2,000 - 3,000 planting slips are required per 100 m of hedgerow. Under very dry conditions, (<700mm) it is better to plant vetiver slips in a small "v" ditch or to plough a furrow to enhance moisture availability at the time of planting. Erosion occurs when the planting is too far apart (>15cm).

Shade

Vetiver should not be planted in shade. Once established, it will withstand shade levels of up to 50%. It will also recover rapidly following the removal of shade.

Fertilizer

Vetiver will establish better if about 100 kg of FYM (Farm Yard Manure) is applied per 100 running meters of hedgerow at planting. If FYM is not available, diammonium phosphate should be applied at about 10 kg per 100 m. Note that one of the advantages of FYM is to help to improve moisture availability to the young vetiver plant at the time of establishment. FYM and/or DAP should be applied liberally to nursery sites prior to planting of material for multiplication. Chicken litter is good component of making excellent fertilizer. The use of slow release NPK nuggets for containerized plant material, though not essential, optimizes growth rates. There is no need to use fertilizer for maintenance purposes once the hedges have been established.

Yield

Aromatic Oil

1 - 1.5% of dry weight of the roots that are harvested for distillation.

Leaves

Yield levels under fertile and moist (irrigated) conditions can be as high as 100 tons per ha. Normally 15 - 30 tons per ha.

Pests and Diseases

Vetiver is generally resistant to most pests and diseases. In China incidence of rice stem borer has been identified. Vetiver appears to be more susceptible to disease when it is weak and not growing well, particularly on very shallow soils in association with drought conditions. Under the latter conditions, root fungus attacks can be serious. Termites will only attack dead or dying parts of vetiver. If the attack is serious the termite "hills" created can smother living vetiver. Under such conditions, annual burning of vetiver hedges will greatly reduce the incidence of

termite damage due to burn out of dead plant material.

Longevity

Vetiver is well known to have long survival time. The longest recorded period is about 60 years (at Msamfu Research Station in Zambia). It normally survives \pm 40 years.

Availability of Plant

Vetiver material can be found in most tropical and semi-tropical countries. It has often been introduced by the aromatic and essential oils industry. National and University herbariums often have vetiver in their collections, and have the local name for it.

Traditional medicine users often know the source of vetiver (though they will not know the grass as vetiver). Vetiver can often be found in countries with established sugar industries, where vetiver has been used for conservation purposes over many years. There are well-known sources of good quality vetiver in eastern and southern Africa, India, Thailand, Malaysia, Indonesia, China, the Caribbean, Central and South America and the United States. It is stressed that seedless or sterile vetiver cultivars should be used.

Impact on Soil Losses

Records from most sites where data has been collected indicate that erosion levels can be reduced to less than 3 tons per ha of soil loss per annum. This is an acceptable level.

Impact on Runoff Reduction:

Records indicate that runoff can be reduced by as much as 60 - 70% of recorded rainfall. There is a great variation on run-off reduction that depends on slope, rainfall event intensity, potential infiltration rates and water holding capacity of the soils at site.

Ground Water Recharge

Not many investigations have been undertaken, but it appears that recharge rates of 30% over unprotected areas are being achieved where vetiver is used.

Crop Yield Increases

Researches and on-farm data confirms that significant yield increases associated with the use of vetiver grass hedges, varying from 15 - 60% can be found in most cases. Yield increases are variable and are associated with rainfall pattern and soil types. Risk of crop failure is reduced. It should be noted that in most instances, vetiver does not compete for moisture and nutrients

with adjoining crops.

Advantages of Vetiver Grass

For a plant to be useful for agriculture and engineering, and be accepted as safe, it should have following characteristics:

- ♦ Its seed should be sterile, and the plant should not produce stolons or rhizomes, and therefore not become a weed
- ♦ Its crown should be below the surface so it can resist fire, over grazing and trampling by livestock.
- ♦ It should be capable of forming a dense, ground level, and permanent hedge, as an effective filter, preventing soil loss from runoff. Apparently only clones will grow into each other to form such a hedge.
- ♦ It should be perennial and permanent, capable of surviving as a dense hedge for decades, but only growing where we plant it.
- ♦ It should have stiff erect stems that can withstand a water flows of at least 1 cusec (0.28 cumecs) 12 inches (0.3m) deep.
- ♦ It should exhibit xerophytic and hydrophytic characteristics. Vetiver grass, once established, is little affected by droughts or floods.
- ♦ It should have a deep penetrating root system, capable of withstanding tunneling and cracking characteristics of soils. The roots should penetrate vertically below the plant to at least 3 m.
- ♦ It should be capable of growing in extreme soil types, regardless of nutrient status, pH, sodicity, acid sulphate or salinity, and toxic minerals. This includes sands, shales, gravels, mine tailings, and even more toxic soils.
- ♦ It should be capable of developing new roots from nodes when buried by trapped sediment, and continue to grow with the new ground level, to eventually forming natural terraces.
- ♦ It should not compete with the crop plants.
- ♦ It should be totally free of pests and diseases, and should not be an intermediate host for pests or diseases of any other plants.
- ♦ It should be capable of growing in a wide range of climates – from 300 mm of rainfall to over 6,000 mm – from temperatures of -15°C to more than 55°C . It should be able to withstand long and sustained droughts (>6 months).
- ♦ It should be cheap and easy to establish as a hedge and easily maintained by the user at low cost.
- ♦ It should be easily removed when no longer required.

Particular Preambles for Standard Method of Measurement

Toyo-Vetiver Grass System

The units of measurement shall be:

- (i) Toyo-Vetiver Grass System.....square meter
- (ii) Establishment Work.....square meter

The measurement of Toyo-Vetiver Grass System shall be the surface area of the slope vegetated. No allowance shall be made for surface irregularities or other local peculiarities. No deduction shall be made for opening of size one square meter or less.

Separate items shall be provided for works in accordance with General Principles paragraphs 3 and 4 and the following:

Group	Feature
I.	Toyo-Vetiver Grass System
II	Establishment Work.

The items for Toyo-Vetiver Grass System shall, in accordance with General Preambles paragraph 2 including for:

- (a) Preparation of surface;
- (b) Excavation of planter hole and installation of PVC pipe with grout;
- (c) Supply and fill topsoil mix with fertilizer;
- (d) Supply and plant Vetiver grass.

The item for establishment work shall, in accordance with General Preambles paragraph 2 including for:

- (a) Watering;
- (b) Fertilizing;
- (c) Insect and pest control;
- (d) Grass cutting;
- (e) Re-grassing where the grass fails to become established.

3. Production Process of Vetiver Grass

The first step is to obtain the planting material, usually from a vetiver nursery. To remove a clump of vetiver grass from the nursery (figure 1.), dig it out with a spade or fork. The root system is too massive and strong for the grass to be pulled out by hand. Next tear a handful of the grass, roots and all, from the clump (figure 2). The resulting piece, the slip, is what gets planted in the field (figure 3).



Figure 1

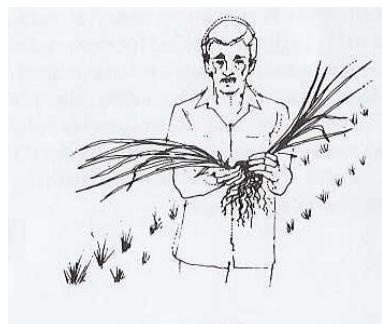


Figure 2

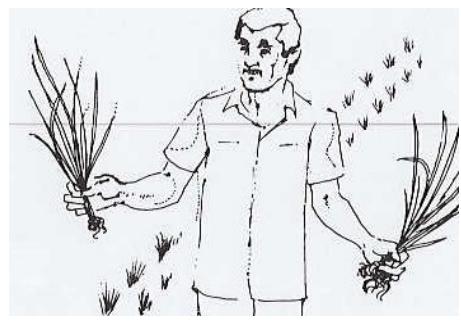


Figure 3

Before transporting the slips from the nursery to the field, cut the tops off about 15-20 cm above the base, and the roots 10 cm below the base. This will improve the survival rate of the slips after planting by reducing the transpiration level and thereby preventing them from drying out.

As shown in (figure 4), all that is needed to prepare the slips for planting is a block of wood and a knife – a cone knife, machete, cutlass, or panga will do. The finished planting piece is shown in (figure 5).

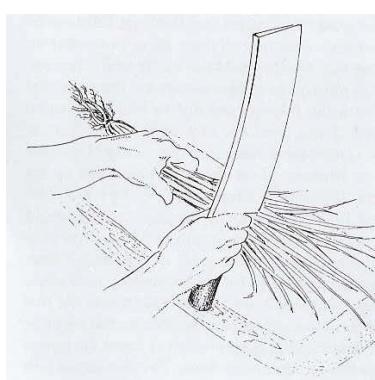


Figure 4

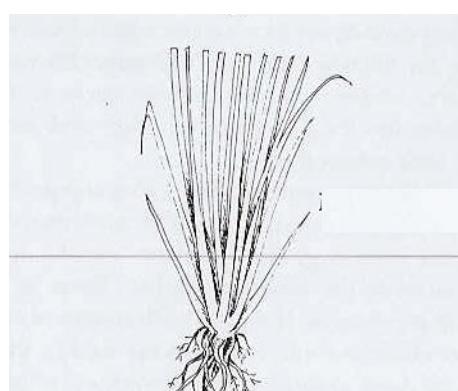


Figure 5

Although vetiver grass can be planted from single tillers (when planting material is scarce), this practice is not recommended for grass to be planted in the field because it takes too long to form a hedge. Fertilizing the slips with diamonium phosphate encourages fast tillering and is helpful both in the nursery and in the field. To do this in the field, simply dibble diamonium phosphate into the planting furrow before planting the slips.

4. PARTICULAR SPECIFICATION

- List of Approved Suppliers of Materials and Specialist Contractors 1.01 If the Contractor is not included in the “ List of Approved Suppliers of Materials and Specialist Contractors for Public Works” maintained by the Employer for:
Landscaping Class I – General Landscaping – Group I
Landscaping Class II – Hydroseeding – Group II

Then he shall enter into written sub-contacts with approved listed contractors, in the relevant Group, for the execution of respective part of the Works.

MATERIALS:

- Planter Hole 2.01 It should be perforated PVC tube of 200 mm diameter and minimum 200 mm depth.
- Soil Mix 2.02 It should consist of friable, completely decomposed granite and soil conditioner in the proportions 3:1 by volume. Soil mix should be free from grass or weed growth, sticky clays, salt, stones exceeding 50mm diameter and other deleterious materials.
- Materials for Grout 2.03 The cement mortar grout will be mixture of water cement with ratio not exceeding 0.38.
- Pre-planting Fertilizer 2.04 The pre-planting fertilizer should be 15:9:15:2 (Nitrogen: Phosphorus: Potassium: Magnesium) slow release granular fertilizer or an equivalent approved by the Engineer.
- Vetiver Grass 2.05 Vetiver plant should be of good and consistent quality. Only known cultivars with documented proven performance should be used.

Top quality of container-plants should be used. Container-plants should meet the following specifications:

The size of the containers for the container-plants should be 200 mm diameter and 200 mm depth.

The container-plants should have active roots that are regenerated in the container media. This root mass should be enmeshed in the potting

medium. Any plants with aged roots should be rejected.

The top should be cut to a height of about 30 mm before delivery to the site.

The clump should have 5 or more actively growing tillers that have been regenerated and produced in-situ in the container. Old tillers extracted from the ground nursery should not be included in the count.

METHOD STATEMENT:

Ground Cleaning 3.01 Weeds, rubbish, litter, stones exceeding 50 mm diameter and all deleterious material shall be removed from the surface of the ground. Vegetation shall be cleared without using herbicide unless permitted by the Engineer. If permitted, the herbicide shall be a proprietary type approved by the Engineer and shall be applied in accordance with the manufacturer's recommendation.

Scaffolding 3.02 A scaffolding should be erected for slope gradient more than 45° .

Installation Planter Hole 3.03 Setting out of planter hole for the planting area at the stagger pattern. The horizontal interval is approximate 800 mm and the vertical interval is 1,000 mm respectively.

Planting the Vetiver Grass 3.04 The soil mix should be filled into the planter hole about 2/3 full with slightly compacted. The remaining 1/3 depth of the planter hole after the first backfilling will provide adequate space for the root mass of Vetiver.

One clump Vetiver grass with at least 5 tillers then placed on the center of the planter hole and soil mix which mixed with 20 g slow release fertilizer as stated in Clause 2.04 should be mixed and filled to the level of slope surface.

The planting operation can be carried out at all seasons but March to October are the preferable period to carry out the planting work

ESTABLISHMENT WORKS:

Establishment Works 4.01 Establishment works shall be carried out for the period stated in the Contract.

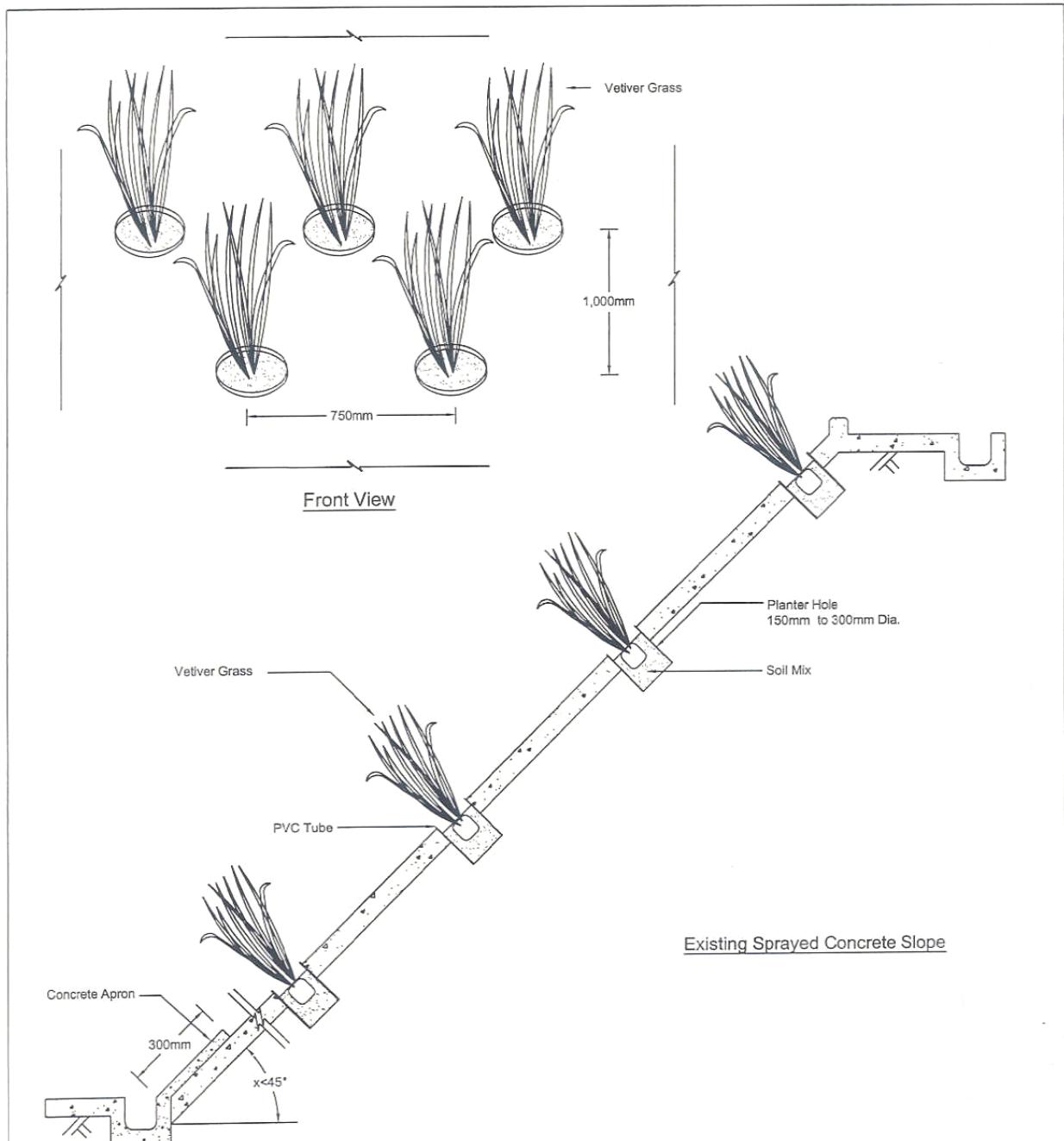
Establishment works shall be carried out as stated in Clauses 4.02 to 4.05. All necessary measures shall be taken to ensure that grass becomes

	established and to keep the area tidy and free from litter and rubbish.
Inspection Establishment Works	<p>of 4.02 An inspection of Vetiver Grass System and the establishment works shall be carried out jointly by the Contractor and the Engineer at quarterly intervals to determine the establishment works which are required. The Engineer shall instruct the Contractor to carry out establishment works that in the opinion of the Engineer are necessary; the work instructed shall be completed within 14 days after the date of the Engineer's instruction.</p>
Replacement of Vegetation	<p>4.03 The survival rate of Vetiver grass should be 90% or better in 2 weeks after planting. All failures should be reinstated within the first month after planting. All slow growing clumps that do not recover from transplanting disturbance should be replaced within the third month after planting.</p> <p>Visual vegetation coverage should be more than 99% of the area at the end of the period for establishment works. The vegetation shall be healthy and free from perennial and other weeds.</p>
Grass Cutting	<p>4.04 Topping grass cutting to maintain approximately 400 mm vertical height should be carried out at the third, sixth and ninth month after planting at site.</p>
Control of Pests and Disease	<p>4.05 Pesticide or fungicide shall be applied in accordance with the manufacturer's recommendations to control pests and disease.</p>
Completion of Work	<p>4.06 Immediately before the end of establishment period, the following work should be carried out:</p> <ul style="list-style-type: none"> ◆ All planted and grassed areas shall be free from litter; ◆ All replacement and patching up of vegetation shall be completed; ◆ All vegetation edges trimmed.
	<p>TESTING OF VEGETATION COVERAGE:</p>
Testing	<p>5.01 Tests shall be carried out to determine the vegetation coverage. The tests shall be carried out 90 days after planting. More than 99% of Vetiver grass should be actively grown and healthy.</p> <p>The tests shall be carried out 180 days after planting. All clump of Vetiver grass should have 5 or more active growing tillers produced at the site.</p>

The tests shall be carried out 365 days after planting. All clump of Vetiver grass should have 12 or more active growing tillers produced at the site.

- Non-compliance Vegetation Cover
- 5.02 If the result of any test for vegetation coverage of works does not comply with the specified requirements for vegetation coverage, the plant shall be replaced in accordance with clause 3.04 as instructed by the Engineer, depending upon the size of the defective area.

5. Typical Detail



COPY RIGHT

Project:	Toyo Greenland Co., Ltd.	
Drawing Title: Toyo-Vetiver Grass System	Check : Ho Tat Pui, Daniel	Scale : N.T.S.

6. Material Submission

Fertilizer 15:9:15:2 Certificate of Analysis



Certificate of Analysis

Product Description: Chipman 15-9-15 + 2 MgO Fertilizer

Guaranteed Minimum Analysis

Total Nitrogen (N)	15.0%
15.0 of 15.0 units of N derived from SCU	
Available Phosphoric Acid (P ₂ O ₅)	9.0%
Soluble Potash (K ₂ O)	18.0%
Total Magnesium (as MgO)	2.0%

Nutrient Release Properties

Nutrient Release occurs over a period of 4 months, at an average temperature of 22°C.

Typical Particle Size Analysis

Tyler Screen - % cumulative retained	
+ 6 (3.327 mm)	2.0%
+10 (1.981 mm)	66.0%
+14 (1.397 mm)	99.0%

Typical pH: Neutral. Range: 6.8 - 8.1

Certification:

I certify that this formulation will meet all the above guarantees and specifications:



Steven P. Warren, Manager Technical Services

Date: Nov 20, 2001

Nu-Gro Corporation
10 Craig Street, Brantford, ON N3R 7J1 Tel. (519) 757-0077 Fax (519) 757-0080 www.nugro.com

Certificate for Peatmoss



LAMÈQUE

Quality has a Name
La qualité porte un nom

Date : March 17, 2003

To whom it may concern:

CERTIFICATE

Re: Peat moss shipment to Hong Kong

VESSEL : LONDON EXPRESS

B/L NO. :

CONTAINER NO. :NYKU6213759

QUANTITY : 1 X 40' CONTAINER, 412 BALES TOURBESOL BRAND, 6 CU FT BALES,

TOTAL WEIGHT : 18,004 KGS

This is to certify that the peat moss is freshly dug up from the peat bog and has not been used for plantation purpose prior to the shipment.

LAMEQUE QUALITY GROUP LTD


DANIELLE BRIDEAU

Groupe Qualité Lamèque Ltée • Lameque Quality Group Ltd
86 , rue de la Tourbe Street, Lamèque, NB, Canada E8T 1A3 • Tel : (506) 344-2293 • Fax : (506) 344-0357

7. Nursery

(A) Production Nursery at Mainland China.



(B) Holding Nursery at Wah Shan Village, Sheung Shui, N.T.



8. Certificates and Licenses

List of Approved Suppliers of Materials and Specialist Contractors for Public Works of the Landscaping Group I Class I

香港特別行政區政府
The Government of the Hong Kong Special Administrative Region

政府總部
環境運輸及工務局
運輸及工務科
香港花園道美利大廈



Environment, Transport
and Works Bureau
Government Secretariat
Transport and Works Branch
Murray Building, Garden Road,
Hong Kong

本局檔號 Our Ref. (38) in ETWB(PS) 103/317 (88) II
WB/01/TGD1157

來函檔號 Your Ref.

Tel. No. : 2848 2122
Fax. No. : 2521 9682
Contractor Ref: TOYGRE

2 July 2002

Toyo Greenland Company Limited,
No. 58, South Section,
Wah Shan Village,
Sheung Shui,
New Territories.

Dear Sirs,

List of Approved Suppliers of Materials and Specialist Contractors for Public Works

I refer to your letter dated 23 August 2001 and am pleased to inform you that your Company has been included in the captioned List under Group I on probation of Class I (General Landscape work) of the 'Landscaping' category.

Please be advised that fellow subsidiaries of the same holding company, holding and subsidiary companies, which have been admitted to the same works category/categories of the captioned List are each required to produce an undertaking that only one company will submit a tender for a particular contract in respect of the categories concerned. Failure to honour this undertaking will render the tenders null and void.

I should be grateful if you would provide me with the names of any of your fellow subsidiaries, holding and subsidiary companies, which have been included in the captioned List and provide the necessary undertakings if they are included under the same category on or before 1 August 2002. Please indicate clearly in your reply the works categories pertaining to each company. If your Company does not have any fellow subsidiaries, holding and subsidiary companies in the List, please confirm accordingly.

You are also required to submit your audited accounts annually and inform this Bureau in writing immediately of any factor which might affect your qualified status. This Bureau reserves the right to review your qualified status in the light of any new information relevant to your qualification.

Finally, I sincerely hope that you would actively tender for Government works in future and try your best to perform well in Government works' contracts if given the opportunities.

Yours faithfully,


(Ms Jackie CHAN)
for Secretary for the Environment,
Transport and Works

SS/JC/kk

List of Approved Suppliers of Materials and Specialist Contractors for Public Works of the Landscaping Group II Class II



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Public Works Contractors

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Public Works Contractors

Technical Circulars

Tenders & Consultancies

Publications & Documents

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Archives

List of Approved Suppliers of Materials and Specialist Contractors for Public

Any firms dealing with the supply of materials or specializing in the works under the categories stated in the "Category, Class and Group" and wishing to be considered for inclusion in the List for the purpose of Government contracts are invited to apply to the Environment, Transport and Works Bureau, Government Secretariat, 12/F, Murray Building, Garden Road, stating the types of works they carry out as suppliers or specialist contractors both.

Invitations of tenders from suppliers/contractors on the List will be published in the Government Gazette normally for government contracts with estimated value exceeding a certain limit. Tender invitations for works contracts under the List may only be published on the Government web site (<http://www.info.gov.hk>) Internet. Tenders received will be subject to check on the supplier/contractor's eligibility to tender.

Firms included in the List are published below for general information and include suppliers/contractors who at the present time are suspended from public works contracts. Suppliers/contractors in the List, unless specifically mentioned, tender for public works contracts only in the works categories, classes and groups for which they are approved.

Category:

Group:

Class:

Position as at 30 September 2002

Total number of matched: 6

Name of Supplier/Specialist Contractor	Category/Categories in which Supplier/Contractor is included
Asia Landscaping Limited	Landscaping (Class II) (Group II)
Bluet Hydroseeding Limited	Landscaping (Class II) (Group II)
Hong Kong Landscaping Company Limited	Landscaping (Class II) (Group II)
Oriental Landscapes Limited	Landscaping (Class II) (Group II)
Pegasus Greenland Limited	Landscaping (Class II) (Group II)
Toyo Greenland Company Limited	Landscaping (Class II) (Group II)

Endorsement of Vetiver Grass Species by the South China Agricultural University
(華南農業大學)

东阳绿化有限公司：

2002 年 12 月中旬由广州五山花木场供应给你公司的香根草[学名：Vetiveria Zizanioides]是由我研究中心的生产基地提供的，原产于东南亚、印度和热带非洲。香根草又叫岩兰草，为禾本科香根草属的一种多年生草本植物。它有两种类型，一种是有性繁殖型；另一种是无性繁殖型。我中心提供的香根草是无性繁殖型品种，既不开花也不结实，靠营养器官进行繁殖。其有关植物学特性、繁殖方法和用途等可参阅有关参考文献。

特此说明！



9. Job Reference

Contract No.: GE/2002/02

10-Year Extended Landslip Preventative Measures Project, Phase 3, Package J

Main Contractor: Tai Kam Construction Eng. Co., Ltd.

Completion Date: May 2003

