



SAB-Germany/Turba Peat company profile

-Introduction:

SAB Germany was founded in 1974 in Syke, Germany and is specialised in the exportation of [SAB-Plantafloor peat moss](#), [potting soil](#) and Peat [substrates](#).

-المقدمة

تأسست شركة ساب في مدينة سيكي في ألمانيا سنة ١٩٧٤ و هي متخصصة في مجال التربة الزراعية و مشتقاتها ولها العديد من المنتجات الحصرية



SAB products are exported all over the world and thousands of containers are been shipped yearly; SAB is considered one of the main world leaders in that peat industry and its products are known for their highest quality;

SAB exhibits its products worldwide and participates with farmers and agencies in many researchs aimed on improving its products to meet local growers requirements; For more info about SAB and its products you can go to our web page www.sab-germany.com

تصنف شركة ساب من قادة العالم الرئيسيين في هذه الصناعة و منتجاتها معروفة لجودتها العالية؛ كما اننا نجد منتجاتها في جميع أنحاء العالم، وتشارك مع المزارعين والوكالات في العديد من الأبحاث التي تهدف الى تحسين منتجاتها لتلبية متطلبات المزارعين المحليين ومنتجاتها يمكنكم مراجعة www.sab-germany.com للحصول على مزيد من المعلومات حول

-Company Turba Peat in Qatar

That recently established company in Qatar includes SAB-Germany with company AG Middle East (which has many years of experience in landscaping and is known for its success in the landscpaing business) and Mr Maher Jabado who is our company director of product development and worked with us since over 20 years;

-شركة تربة بيت في قطر

تلك الشركة تأسست حديثا في قطر تشمل أنفسنا (ساب ألمانيا) مع شركة اجي الشرق الأوسط (التي لديها العديد من سنوات الخبرة في المشاريع الزراعية و هي معروفة لنجاحها في الأعمال التجارية) و مع السيد ماهر جياضو (الذي يعمل لدينا منذ أكثر من ٢٠ عاما و هو مدير تطوير منتجاتنا

-Turba Peat company Targets:

Our targets are clear and simple: Producing potting soil out of recycled green foliage and with the support of our peat moss; The mixed blend produced will be treated under professional guidance and up to the high level of control so that high quality potting soil is produced suitable for many usages inside the greenhouses, projects, outdoor gardens and at home;;



اهداف شركة تربة بيت

أهدافنا واضحة وبسيطة: إنتاج تربة منشقات أوراق الشجر و مخلفات التيل الخضراء الاتية من مشاريع صيانة الحدائق ومذجها مع البيتموس الاتي من شركة ساب الالمانية ومن ثم تخمير المنتج و معالجته بأفضل المعدات و التقنيات الحديثة لإنتاج تربة زراعية عالية الجودة صالحة للإنتاج الزراعي و الى تحسين التربة في المشاريع التجميلية

-Turba Peat product Characteristics:

The product is produced using over 75% of recycled green waste
The product has no bad smell
The product is free of harmful diseases
The product is widely free of seeds
The product is 100% Organic and suitable for organic farming
The product can be shipped in trucks and also in bags for local and export markets

مميزات تربة بيت

سيتم إنتاج المنتج باستخدام أكثر من 75% من النفايات الخضراء المعاد تدويرها
المنتج لن يكون له رائحة كريهة
المنتج سوف يكون خالي من الأمراض الضارة
المنتج سوف يكون خالي من البذور
المنتج سوف يكون خالي من الإضافات الكيماوية و صالح للزراعة العضوية
يمكن شحن المنتج في الشاحنات وأيضا في أكياس للأسواق المحلية والتصدير





PRODUCT 1 ANALYSIS REPORT

TURBA GREEN COMPOST

Analysis Report Turba Green Compost Lot # 13A03042014

Country of Origin: Qatar

| | |
|--|-------------------|
| Laboratory Compacted Bulk Density(DIN EN 13040) | 458 g/l |
| pH (H ₂ O) (DIN EN 13037) | 7.3 |
| Electrical conductivity EC (DIN EN 13038) | 290 mS/m |
| Nitrogen / N (H ₂ O) (DIN EN 13652) | 105 mg/l |
| Phosphorus / P (H ₂ O) (DIN EN 13652) | 113 mg/l |
| Potassium / K (H ₂ O) (DIN EN 13652) | 2100 mg/l |
| Sodium / Na (H ₂ O) (DIN EN 13652) | 900 mg/l |
| Chloride / Cl (H ₂ O) (DIN EN 13652) | 1900 mg/l |
| Dry matter % (DIN EN 13652) | 54 % |
| Organic Matter % (LOI) (DIN EN 13039) | 38 i.d TS |
| Copper (Cu) (ISO 11885, E 22 # 4) | 45 mg/kg i.d TS |
| Zinc (Zn) (ISO 11885, E 22 # 4) | 115 mg/kg i.d TS |
| Selenium (Se) (ISO 11885, E 22 # 4) | 0.24 mg/kg i.d TS |
| Arsenic (As) (ISO 11885, E 22 # 4) | 1.65 mg/kg i.d TS |
| Lead (Pb) (ISO 11885, E 22 # 4) | 3.9 mg/kg i.d TS |
| Cadmium (Cd) (ISO 11885, E 22 # 4) | 0.1 mg/kg i.d TS |
| Chromium (Cr) (ISO 11885, E 22 # 4) | 14.0 mg/kg i.d TS |
| Nickel (Ni) (ISO 11885, E 22 # 4) | 13.1 mg/kg i.d TS |
| Mercury (Hg) (ISO 1483, E 12 # 4) | 0.02 mg/kg i.d TS |
| Molybdenum(Mo) (ISO 38406,E 29 # 4) | 3.61 mg/kg i.d TS |
| C/N Ratio | 13 |



PRODUCT 2: TURBA COMPOST MIX (40% GREEN COMPOST + 40% PEAT MOSS + 20% SAND)

**Turba Compost Type 2
(Mixed with peat and
Sand)**



Arab Center **المركز العربي**
For Engineering Studies للمهندسات والعلوم

REPORT ON CHEMICAL ANALYSIS OF COMPOST MATERIAL

Page 1 of 1

| | | | |
|--------------------|------------------------------|-------------------|------------------------------|
| ACES Client | AG Middle East | Report No. | TER14009510 |
| Contractor | CONTRACO ENGG. WORKS | Date Reported | 11-08-14 |
| Consultant | Time Qatar | Sample No. | TES14007410 |
| Owner | Qatar Foundation | Request No. | TEQ14004703 |
| Project No. | - | Client Reference | PO # AG7548 Dated 10-07-2014 |
| Project Name | Qatar Foundation Golf Course | | |
| Sample Description | Compost Material - S#02 | Sampled By | Contractor's Rep. |
| Source | N.P. | Sampling Date | 02-08-14 |
| Sample Location | N.P. | Sampling Cert. | N.P. |
| Lot No. | N.P. | Sampling Method | - |
| Lot Size | N.P. | Sample Size | - |
| Sample Prep. | - | Sample Brt. In By | Contractor's Rep. |
| Test Method Var. | - | Date Received | 02-08-14 |
| Date Tested | 07-08-14 | Tested By | Karzem |

N.P. indicates information not provided by the Client.

Test Results:

| Test | Test Method | Test Result | |
|-------------------------------------|---|-------------|-------|
| pH Value | Manual for Soil, Water, Plant & Fertilizer Analysis | 7.50 | |
| Electrical Conductivity (mmho/cm) | | 5.90 | |
| Carbon:Nitrogen Ratio | | 20.38:1 | |
| Organic Matter (%) | | 7.73 | |
| Water Soluble Nitrate (ppm) | | 723.63 | |
| Boron (in Saturation Extract) (ppm) | | 0.07 | |
| SAR (Sodium Adsorption Ratio) | | 1.14 | |
| Water Soluble Phosphorus (P) (ppm) | | 6.99 | |
| Water Soluble Potassium (K) (ppm) | | 1,075.86 | |
| Total Phosphorus (P) (%) | | USEPA 3050B | 0.05 |
| Total Potassium (K) (%) | 0.12 | | |
| Calcium (Ca) (ppm) | 46,891 | | |
| Iron (Fe) (ppm) | 1,895 | | |
| Magnesium (Mg) (ppm) | 3,034 | | |
| Total Nitrogen (%) | BS 7755-3.5-1995/ISO 11261-1995 | | 0.22 |
| Cation Exchange Capacity (meq/100g) | USDA HANDBOOK NO.60 | | 24.00 |

Remarks :- The test results related only to the specimen(s) tested.



TURBA GREEN COMPOST USAGE AS MULCH



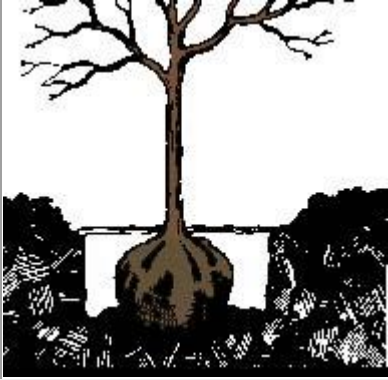
Save the Earth by Thinking Green: Our Turba Green Compost is excellent as Garden Mulch

Turba Green Compost insulates the soil; It keeps the soil cool and moist in hot weather, and helps conserve water. Furthermore, as the organic matter decays, it provides nutrients for beneficial microbes in the soil. It also helps control weeds, and when decomposed it adds nutrients to the soil. The Compost holds moisture "like a sponge" and releases fertilizer nutrients slowly;

Company Turba is able to produce the mix that client requires and/or develop product mix specific for the targeted product grown or maintained

There are however, 2 main products developed at company Turba and available in large quantity The types and benefits of these 2 products are listed below:

| Usage | Type 1: Turba Green Compost Pure | Type 2: Turba Compost Mix (40% Green compost+40% Peat Substrate+20% Sand) | Picture | Benefits |
|----------------------|---|--|---------|--|
| Mulch around trees | Usage rate: 100% Use about 6-10 cm deep Min 1 m diameter depending on tree type/size/objective | Type 1 is more recommended | | <ul style="list-style-type: none"> -Preserves Water -Slow Release of Nutrients -Improves Soil Texture -Helps control weeds -Esthetic Beauty |
| Mulch Between Plants | Usage rate: 100% Use about 5cm deep Spread the compost among plants Should not be used for direct planting | Usage rate: 100% Can be used on surface and below plants Can be used for direct planting | | <ul style="list-style-type: none"> -Preserves Water -Slow Release of Nutrients -Improves Soil Texture -Helps control weeds -Esthetic Beauty |

| | | | | |
|--|---|---|---|--|
| <p>New Lawn preparation</p> | <p>Usage rate 5%, Best when Mix with 10% peat and remaining 85% with local clean sand</p> | <p>Usage rate 20% Remaining 80% local clean sand</p> |  | <ul style="list-style-type: none"> -Faster lawn development -Preserves Water -Slow Release of Nutrients -Improves Soil Texture |
| <p>Lawn Improvement</p> | <p>Usage rate: 100% Use as thin top layer and spread it over the lawn; Best during aeration process</p> | <p>Can be used BUT Type 1 is better</p> |  | <ul style="list-style-type: none"> -Preserves Water -Slow Release of Nutrients -Improves Soil Texture -Better root growth |
| <p>Planting Seasonal plants</p> | <p>Mix rate 10%</p> | <p>Can be used at rate of 20-100%</p> |  | <ul style="list-style-type: none"> -Very good potting soil -Will help roots growth -Will release nutrients slowly -Will conserve water |
| <p>New Tree Root booster</p> | <p>-Place below Tree for root growth Mix rate of 10% -Can be used as mulch for water conservation</p> | <p>Place below and around tree Mix rate 50-100%</p> |  | <ul style="list-style-type: none"> -Will help roots growth -Will improve soil texture -Will release nutrients |



-TESTING TURBA COMPOST MIXES
-COMPARISON WITH OTHER MIXES

PART 1: 12 DAYS GROWTH COMPARISON

Intro:

It is well documented that Green Compost does not only help environment by recycling the green remains but has also a major positive impact on plant production and root development; It also helps in water retention and provides better bacteria environment for healthy crop with less diseases; The question is how does the green compost behave when produced and used under desert environment and how effective will be on plants and roots growth as compared to major Saudi animal manure compost and to European and Sri Lanka potting soil/coco/substrates (major brands available in the Qatari market)

Procedure:

On June 29 we used about 50 m2 of greenhouse area at Al Nakheel farm located in Shahanya/Qatar; Testing objectives were to compare plants and roots development using Turba compost mixes with some other mixes listed below;

Planting was done in pots size 14 cm with 2 main varieties (initial plants size about 5 cm) and 5 samples per mix per variety

During the 12 days the greenhouse was monitored so that temp remains below 35 C (outside day temp was about 45C) and that soil condition in all mixes remains wet;

Pictures were taken daily to monitor growth development and any comment was recorded daily;

Results after 12 days:

| | |
|--|--|
| <p>Table 1: Vegetative Growth differences between the mixes Note 1: Expand picture by clicking on it Note 2: The products names are listed in the table from best to worse</p> | |
| <p>Turba Compost Products mixes comparison (Listed from best to worse)</p> <ul style="list-style-type: none"> -Turba Compost mixed with Peat-Perlite -Turba Compost mixed with Peat -Turba Compost Substrate with Perlite -Turba Compost Substrate alone -Turba Compost mixed with Peat and Sand | |
| <p>Turba Compost versus Others part 1</p> <ul style="list-style-type: none"> -Turba Compost mixed with Peat-Perlite -Turba Compost mixed with Coco peat -Turba compost mixed with 95% sand -Coco Substrate -Saudi Animal manure compost | |

Turba Compost versus Others part 2

- Turba Compost mixed with Peat-Perlite
- SAB Peat
- Turba Compost mixed with Sand and Peat
- Europe La Flora
- Al Nakheel Farm Soil Mix
- Coco Sand Perlite mix



Table 2: Root development differences between the mixes
(Listed starting from best root development)

| | |
|---|--|
| -Turba Compost mixed with Peat-Perlite | |
| -Turba Compost mixed with SAB peat | |
| -Coco Substrate alone | |
| -Turba Compost mixed with Sand and SAB Peat | |
| -Turba Compost mixed with Coso Peat | |
| -Saudi Animal manure Compost | |
| -European La Flora potting soil brand | |

Conclusion:

- 1) The best mixes are the Turba Green Compost-Peat-Perlite and the Turba Compost-Substrate ([picture 1a](#)); The plants with such mixes more than doubled in size in only 10 days and roots reached bottom and showed significant development;
- 2) Turba Compost substrate retained significantly more water than any other mix;
- 3) The worse mixes are those mixed with the SAUDI animal compost (even at low usage rates)
- 4) The coco peat and coco substrate did also bad; However it was interesting to see the significant coco improvement when mixed with Turba Green compost
- 5) It was also interesting to see that a mix of Turba compost with Peat and Sand developed very nicely (in term of upper growth and root development and even for seed germination); That could be a low cost option solution for outdoor production
- 6) It was very negatively surprising that Saudi compost not only did bad in plant development but also caused no seed germination (neither alone nor when mixed with other products, seed germination tests details will follow at a later stage)




PART 2: 5 WEEKS GROWTH COMPARISON

1) Comments:

Further greenhouse testings confirm the followings (as compared to many brands such as Flora Europe potting soil and Sri Lankan coco peat and Saudi compost)

- Turba Compost substrate did the best results in all aspects of growth and development
- Turba compost mixed with peat and sand was the second best
- Saudi compost had early negative results and was removed at early starge of testing
- Sri Lankan coco peat and coco peat substrates gave also negative results (better than Saudi compost mix) but were kept in the testing. Only positive results were shown when coco peat was mixed with Turba compost
- It was interesting to see that 5pct only of Turba compost mixed with sand did positively well (less than Turba compost substrate but much better than coco peat and coco substrate) That is a very significant saving for those planting outdoors and for landscaping projects
- in all mixes that included Turba compost, there was very significant saving on water since water retention was clearly noticed leading to less watering and to better plant and root growth

2) Pictures comparison:

| | | |
|--|---|---|
| <p>Comparison among Turba compost mixes</p> | <p>Comparison among Turba compost and La Flora (Europe potting soil) and Coco Peat (regular and substrate)</p> | <p>Comparison among Turba Compost and Turba compost peat sand and Turba Compost (5%) Sand (95%) and Turba Compost (10%) Coco (90%)</p> |
|  |  |  |
| <p>Turba compost substrate did the best followed by Turba compost ready sand mix</p> | <p>Turba compost Substrate did the best La Flora potting soil had good results Coco peat had negative results</p> | <p>Turba Compost Substrate did the best Turba compost (5%) with sand (95%) had positive results Turba compost (10%) with Coco peat gave better results than coco peat alone</p> |