Tottori Resource Recycling, Inc. Tottori Resource Recycling Morocco S.A.R.L

Soil improvement agent for water saving will be showcased in SIAM Morocco

Agadir, Morocco, April, 12th, Tottori Resource Recycling, Inc. Japanese foamed glass manufacturer through glass recycling technology, and its subsidiary Tottori Resource Recycling Morocco S.A.R.L(TRR group) showcase its water saving solution for agriculture at SIAM 13th edition (La 13^{ème} édition du Salon International de l'Agriculture au Maroc) in Meknes, Morocco from 24th to 29th April 2018.

Morocco has a huge agriculture industry, on the other hand, agricultural areas such as Souss Massa region, which is the center of vegetable production, locate in arid and semi-arid zone, and the sustainable water resource use is a pressing issue. In addition, it's expected to decrease a rainfall caused by climate change, predicted to decline 20-30% by the end of this century, according to UNDP (Reference: UNDP climate change adaptation¹)_o

Tottori Resource Recycling, Inc. have conducted an experimental project for realizing water saving agriculture by using foamed glass "Porous Alpha" since June 2015, at experimentation field in Souss Massa, Morocco, assisted by support program for Japanese SME's oversea business development of JICA (Japan International Cooperation Agency), in the project, TRR group realized 50% water and fertilizer saving and more than 20% yield increase in Tomato and Green beans crops.²

Tottori Resource Recycling, Inc. created their subsidiary, Tottori Resource Recycling Morocco S.A.R.L in Agadir, Morocco at May 2017, to provide production improving solution for farmers through water and fertilizer saving and yield increase.

TRR group promote an innovative soil improvement agent "Porous Alpha" in SIAM for farmers to improve their productivity. Please refer to the following information to find exhibition detail.

SIAM 13th edition

Period : 24th to 29th April 2018 Place : Meknes, Morocco Exhibition zone : Agro-Fournitures

Company booth : A73

♦Contact

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You can contact us through our Web site (Please click here)

² http://www.t-rrl.jp/2016/03/greenbeans/



¹ http://adaptation-undp.org/explore/northern-africa/morocco (Accessed 29th March 2018)

♦ Business expansion in Morocco

TRR has conducted experimental project since 2015 by JICA oversea business development program, and realized 50% water and fertilizer saving and yield increase by using recycling foamed glass "Porous Alpha", in Souss Massa, Morocco.

TRR created their subsidiary Tottori Resource Recycling Morocco S.A.R.L in May 2017, to promote water saving agriculture in the country.

♦ Activities for water saving agriculture in arid zone

TRR started their activities for water saving agriculture in Er-Rachidia

< Activities until 2016 >

| Region | Target culture |
|-------------|---------------------------------|
| Souss Massa | Tomato, Green beans, Hot pepper |

< Activities from 2017 >

| Region | Target culture | |
|-------------|-----------------------|--|
| Souss Massa | Blueberry, Raspberry | |
| Taroudant | Citrus fruit, Chicory | |
| Marrakech | Melon | |
| Zagora | Water Melon | |
| Er-Rachidia | Date Palm | |

and Zagora which locate near to Sahara Desert since 2018. Er-Rachidia locate on arid zone, it has monthly average rainfall 6.7mm and monthly average temperature 38°C in summer. In the region, farmers are producing Date, Olive and/or Water melon etc. in Oasis TRR started new trial with Date Palm in Er-Rachidia and Water Melon in Zagora, in order to realize a sustainable agriculture



Figure 1: TRR's business area in Morocco

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec The average precipitation(mm) The average maximum temperature(°C) Table 1: Climate in Er-rachidia (Past 30 years) *2

Mix into whole bed in the case of Tomato, Green beans

♦ Application for each culture

Foamed glass "Porous Alpha" perform its water saving capacity by mixing into soil. TRR started new product application method for planted tree.

1) Vegetable crops

For the culture which has short distance between each plant such as Tomato and Green beans, Porous Alpha will be mixed whole bed (Figure A). For the culture which has long distance between plant such as Water Melon and Melon, Porous Alpha will be mixed only around plant. (Figure B)

2) Fruit tree

In the case of planted fruit tree, dig 4 points around tree, then mix "Porous Alpha" into soil. (Figure C)

Figure A

Figure B

Mix only around plants in the case of Water Melon, Melon.

Figure B

Second year

First year

Figure C

Dig the soil under irrigation area, then mix into soil

TRR continue its contribution for realizing sustainable water use in Morocco through water saving agriculture by using innovative water saving agent "Porous Alpha".

- $\hbox{$\%$ 1 Source: Mapchart (URL\ https://mapchart.net/africa-detailed.html,\ Accessed\ 3^{rd}\ April\ 2018)$ }$
- **2 Reference: Météobleu (URL https://www.meteoblue.com/en/weather/forecast/modelclimate/errachidia_morocco_7280528, Accessed 3rd April 2018)