

# AGUIA

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ASX Market Announcements  
Level 6, Exchange Centre  
20 Bridge Street  
Sydney NSW 2000

## FURTHER EXCEPTIONAL RESULTS FROM AGRONOMIC TESTS WITH NATURAL FERTILISER FROM THE TRÊS ESTRADAS PHOSPHATE PROJECT

**Sydney, Australia**, - Agua Resources Limited ABN 94 128 256 888 (ASX: AGR) ('**Agua**' or the '**Company**') is pleased to report exceptional results from agronomic tests on rice using Direct Application Natural Fertiliser (DANF) products from the Três Estradas Phosphate Project (TEPP) deposit.

### Highlights

- The application of Agua's branded phosphate products, Pampafos<sup>®1</sup> and Lavrato<sup>®2</sup>, on rice crops returned yields of up to 99.8% of those achieved using conventional fertilisers.
- Productivity results demonstrate high potential for the application of Pampafos<sup>®</sup> and Lavrato<sup>®</sup> in rice fields with the ability to replace conventional and chemically processed phosphate fertilisers.
- The State of Rio Grande do Sul (RS) is the largest rice producer in Brazil with approximately one million hectares of rice fields and an annual production of around 8.5 million tonnes of rice.
- Pampafos<sup>®</sup> and Lavrato<sup>®</sup> have been demonstrated to be highly effective on RS's two major crops – soybean and rice. Further agronomic tests on other crops are planned.
- Development of the TEPP is progressing to plan with multiple work streams advancing.

### Management Commentary

**Managing Director Dr. Fernando Tallarico said:** "These agronomic results are extraordinary as they demonstrate that both Pampafos<sup>®</sup> and Lavrato<sup>®</sup> are extremely efficient natural products. The efficiency of our Natural Fertilisers becomes particularly evident in the tests in which there was a total replacement of phosphate from conventional sources which are chemically treated."

"Pampafos<sup>®</sup> and Lavrato<sup>®</sup> are natural products free from processing to increase their grades and solubility. We will continue to perform a variety of agronomic tests across the State of Rio Grande do Sul, which will be key for the marketing of our products in the near future. Soybeans are another crop produced extensively across RS and we have further test results pending here too. We also have a number of other work streams underway and despite some restrictions in Brazil due to the ongoing pandemic, our team is advancing our plan and timeline with respect to the TEPP's development.

## **Background**

As reported in the ASX announcement on 16 June 2020: “Soybean Agronomic Tests Confirm High Quality Três Estradas Natural Phosphate Fertiliser”, the Company engaged Integrar Gestão e Inovação Agropecuária (‘Integrar’), a renowned independent agronomic consulting firm located in RS, to conduct agronomic efficiency tests on the Três Estradas phosphate fertiliser products as sources of phosphorous (P) for crops. Two products in development, with registered brand names ‘Pampafos®’ and ‘Lavrato®’ which come from processed ore types CBTSAP and AMPSAP, respectively, are being used in the agronomic tests.

The agronomic performance tests determine how efficiently the P-nutrient is delivered to the soil and then to the crop. Test #1 which was undertaken in the field at Integrar’s Agronomic Station located in Capivari do Sul, RS evaluated three successive crops (soybean, ryegrass and rice) to determine the reactivity and availability of the P-nutrient from Pampafos® and Lavrato® to the plants, and to determine its agronomic value. The test commenced in late December 2019 on soybean, the 2019/2020 summer crop, followed by ryegrass in the 2020 winter crop, and finally rice in the 2020/2021 summer crop. This announcement presents the results of the test on the 2020/2021 rice crop, which was harvested in April 2021.

Test #1 consists of 16 distinct agronomic treatments listed in Table 1. These treatments consist of different sources of phosphate for comparison purposes, including conventional phosphate fertilisers such as Super-simple Phosphate (SSP), Triple Superphosphate (TSP), Monoammonium Phosphate (MAP), and Natural Phosphate from Morocco (NP). Treatments with distinct quantities of our natural fertiliser products (Pampafos® and Lavrato®), a combination of Pampafos® and Lavrato® with MAP, and a phosphate solubilizer known as BiomaPhos, were also tested. In Test #1 the nutrient sources were applied by launching in the field. The test was replicated four times with the sequence of blocks randomised for each treatment.

The application rate of nutrients on the rice crop for each treatment was as follows:

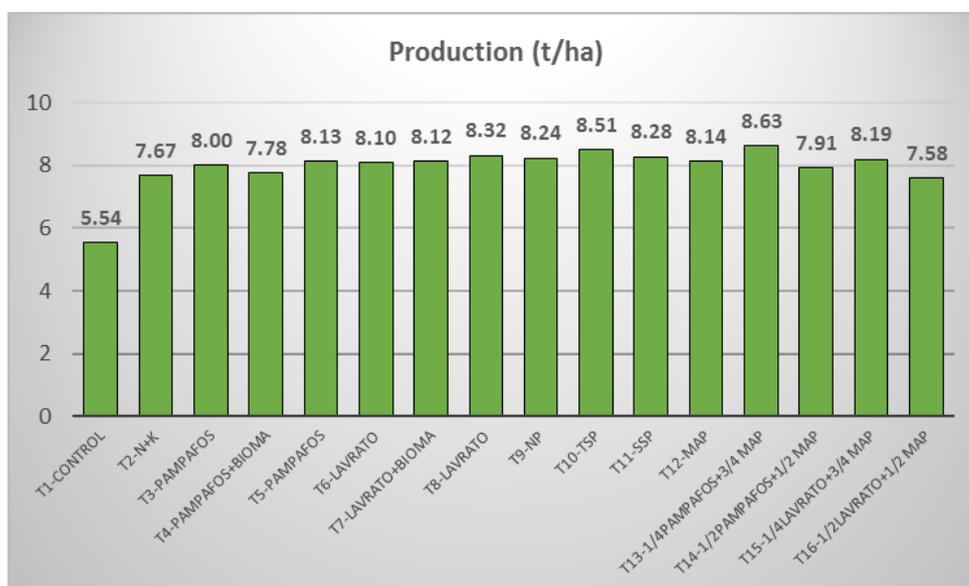
- Nitrogen (N): 150 kg/ha of N in treatments T2 to T16. In treatments T12 to T16, the content of N in MAP was discounted from this amount.
- Potassium (K): 200 kg/ha of KCl (Potassium chloride) in treatments T2 to T16.
- Phosphate dosage P1: 50 kg/ha of P<sub>2</sub>O<sub>5</sub>.
- Phosphate dosage P2: 100 kg/ha of P<sub>2</sub>O<sub>5</sub>.

**Table 1 – Summary of treatments on rice in the field.**

Treatment	Dosage	Sources of P
T1	Control	No source of N, P and K applied
T2	N+K	No source of P applied
T3	N+K+P1	Pampafos®
T4	N+K+P1	Lavrato® + BiomaPhos (phosphorus solubilizer)
T5	N+K+P2	Pampafos®
T6	N+K+P1	Lavrato®
T7	N+K+P1	Lavrato® + BiomaPhos (phosphorus solubilizer)
T8	N+K+P2	Lavrato®
T9	N+K+P1	Natural Phosphate from Morocco (NP)
T10	N+K+P1	Triple Super Phosphate (TSP)
T11	N+K+P1	Simple Super Phosphate (SSP)
T12	N+K+P1	MAP
T13	N+K+P2	¼ via Pampafos® + ¾ via MAP
T14	N+K+P2	½ via Pampafos® + ½ via MAP
T15	N+K+P2	¼ via Lavrato® + ¾ via MAP
T16	N+K+P2	½ via Lavrato® + ½ via MAP

## **Test #1 – Rice Productivity**

The rice productivity returned from each treatment in Table 1 above is presented in Figure 1.



**Figure 1 – Rice production resulting from each treatment in Test #1. 2020/2021 summer harvest in Capivari do Sul, RS, Brazil.**

Treatment T13, the application of 100 kg/ha of P<sub>2</sub>O<sub>5</sub> (25% Pampafos® + 75% MAP), returned the highest rice yield of all treatments with 8.63 t/ha.

Treatment T3, Pampafos® in a P<sub>2</sub>O<sub>5</sub> dosage of 50 kg/ha returned a yield of 8.00 t/ha, which equates to 94% of the yield achieved using the conventional fertilizer TSP (8.51 t/ha) (T10), 97% of the NP yield (8.24 t/ha) (T9), 96% of the SSP yield (8.28 t/ha) (T11), and 98% of the MAP yield (8.14 t/ha) (T12).

When applied in a P<sub>2</sub>O<sub>5</sub> dosage of 100 kg/ha, Pampafos® (T5) returned a yield of 8.13 t/ha, which equates to 95% of the yield achieved using TSP (T10), 98% of the yield achieved using NP (T9) and SSP (T11), and 99.8% of the yield achieved using MAP (T12).

Treatment T6, Lavrato® in a P<sub>2</sub>O<sub>5</sub> dosage of 50 kg/ha returned a yield of 8.10 t/ha, reaching 95% of the yield achieved using TSP (T10), approximately 98% of the yield achieved using NP (T9) and SSP (T11), and 99.5% of the yield achieved using MAP (T12).

Treatment T8, Lavrato® in a P<sub>2</sub>O<sub>5</sub> dosage of 100 kg/ha returned a yield of 8.32 t/ha, higher than yields returned from NP, SSP and MAP, and reaching approximately 98% of the TSP yield.

The relative rice yield illustrating these results is presented in Figure 2.

The results demonstrate an efficient P<sub>2</sub>O<sub>5</sub> absorption by the plants from Pampafos® and Lavrato®. There is a very positive similarity between the treatments tested, be they with the application of Pampafos® or Lavrato®, conventional fertilizers, or a combination. This can be attributed to two factors, fundamentally, or to the sum of both:

1. Greater solubilization of the natural phosphates applied to the field in the previous harvests (soybean in the 2019/20 harvest and ryegrass in the winter of 2020), which is expected to happen over time.

2. A natural increase in the levels of phosphorus in the soil by the permanent flooding of the rice crop, a chemical phenomenon resulting, among other factors, from increasing the pH of the soil.

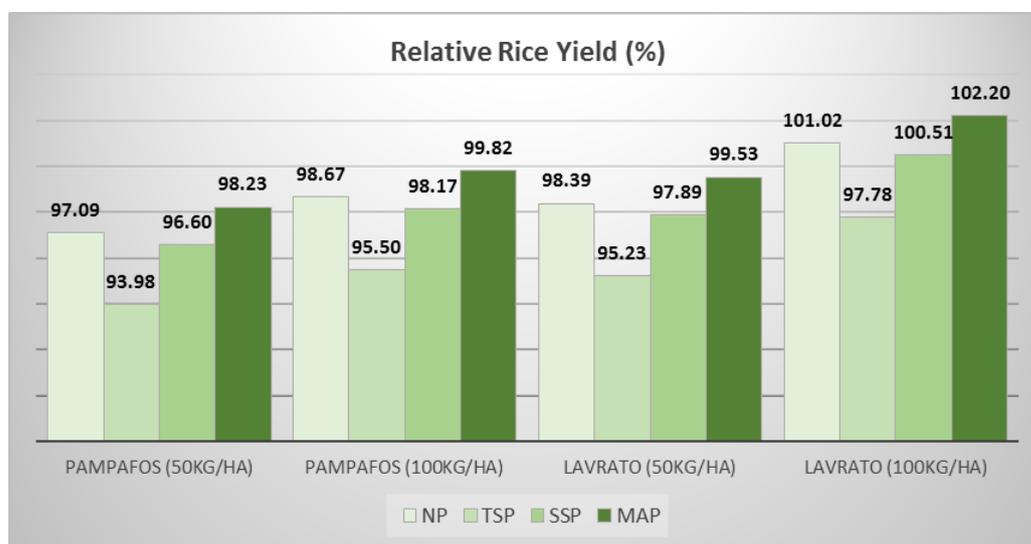


Figure 2 – Relative rice yields for Test #1 production results from 2020/2021 summer harvest in Capivari do Sul, RS, Brazil.

### Next Steps

Agua is currently developing further agronomic tests with the Federal University of Rio Grande do Sul ('UFRGS') and the Federal University of Pelotas ('UFPEL'), both located in RS.

In addition, Agua has signed off on a contract addendum with Integrar to extend the current tests at Capivari do Sul Agronomic Station for 24 months. This will include further tests on ryegrass (winter 2021), soybean (summer 2021/2022), wheat (winter 2022) and rice (summer 2022/2023).

Agua is also planning to undertake agronomic tests in key locations across RS, looking to regions with high productivity, and consequently high demand for phosphate, and to settle demonstrative plots within influencing producers. The technical staff is aware that conducting tests in distinct soils, on distinct crops and varying dosages is imperative to understand the product performance, guide the product positioning in the market and, support the sales in the near future.

<sup>1</sup> Pampafos is the Registered Brand for Natural Phosphate Fertilizer grading about 10% P<sub>2</sub>O<sub>5</sub> which will be produced from the saprolite of the carbonatite ore (CBTSAP). CBTSAP represents more than 80% of the resource of TEPP Phase 1. <sup>2</sup> Lavrato is the Registered Brand for Natural Phosphate Fertilizer grading about 5% P<sub>2</sub>O<sub>5</sub> which will be produced from the saprolite of the amphibolite ore (AMPSAP). AMPSAP represents about 17% of the TEPP Phase 1 resource.

**AUTHORISED FOR ISSUE TO ASX BY FERNANDO TALLARICO, MANAGING DIRECTOR OF AGUIA RESOURCES LIMITED**

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**About Aguia:**

Aguia Resources Limited, ("Aguia") is an ASX listed multi-commodity company (AGR:ASX) with pre-production phosphate and metallic copper projects located in Rio Grande do Sul, the southernmost state of Brazil. Aguia has an established and highly experienced in-country team based in Porto Alegre, the capital of Rio Grande do Sul. Aguia's first project, the Três Estradas Phosphate Project is expected to be in production by Q4 2021. Aguia is committed to advancing its existing projects into production whilst continuing to pursue other opportunities within the sector.

**JORC Code Competent Person Statements:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr. Fernando Tallarico, who is a member of the Association of Professional Geoscientists of Ontario. Dr. Tallarico is a full-time employee of the company. Dr. Tallarico has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr. Tallarico consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**Caution regarding forward-looking information:**

This press release contains "forward looking information" within the meaning of applicable Australian securities legislation. Forward looking information includes, without limitation, statements regarding the next steps for the project, timetable for development, production forecast, mineral resource estimate, exploration program, permit approvals, timetable and budget, property prospectivity, and the future financial or operating performance of the Company. Generally, forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including, but not limited to: general business, economic, competitive, geopolitical and social uncertainties; the actual results of current exploration activities; other risks of the mining industry and the risks described in the Company's public disclosure. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities law.