

# AGUIA

8 November 2022

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

## EXCEPTIONAL AGRONOMICAL RESULTS USING PAMPAFOS ON PASTURE

**Sydney, Australia** – Agua Resources Limited ABN 94 128 256 888 (ASX: AGR) or 'Agua' or the 'Company' is a mining company operating in the State of Rio Grande do Sul or 'RS', the southernmost State of Brazil - the company has 2 well-developed projects: A Phosphate Project, which will produce organic phosphate fertiliser, and a Copper Project, which will produce cathode copper.

Agua is pleased to report the results of agronomic tests using our Natural Fertiliser *Pampafos*<sup>®</sup> from Agua's Phosphate Project. All testing was carried out in the southernmost Brazilian State of Rio Grande do Sul ('RS' or the 'State').

This is the first time we have tested *Pampafos* on native pastures. Our *Pampafos* marketing is ordinarily focused on cropping, where fertilisers are essential for production. In RS, cattle growers rarely use the available chemical fertilisers due to their high cost. The outstanding test results on native pastures, which we are reporting to you for the first time, have turned that assumption around and opened a potentially vast new market at the doorstep of our Phosphate Project with our competitively priced product.

### Agronomic Testing Highlights

- **The test results show that the spreading of P<sub>2</sub>O<sub>5</sub> through Pampafos<sup>®</sup> fertiliser on native pastures, which have never been treated with chemical fertilisers, resulted in improved forage grass production levels of 41% when compared to the Control group where no fertiliser was applied.**
- **There is an area of 90,000 sq kilometres of native grassland in RS under cattle grazing, with much of it in close proximity to our Phosphate Fertiliser Project. In RS, cattle growers already produce grass-fed organic beef. By applying Pampafos<sup>®</sup>, they will be able to increase their forage grass production significantly and still produce grass-fed organic beef.**
- **The proximity of vast tracts of cattle country to our Phosphate Fertiliser Project makes transportation relatively cheap.**
- **Increased forage grass production is directly proportional to increased cattle weight and, consequently, higher beef production.**
- **The results also demonstrated that production levels for Pampafos were again higher, and in this case 14% higher, than where conventional TSP fertiliser was used under the same testing conditions.**

These results consolidate data generated over one year of agronomical testing and research with native pasture in the State. The testing program will continue, and the yield results will be reported as they become available.

## **Management Commentary**

**Managing Director Dr Fernando Tallarico said:** “These results are both exceptional and significant because RS is a very high-producing cattle State in Brazil with over 9 million hectares of pasture supporting a herd of 11.5 million cows. The industry exports beef to 90 countries, generating AUD 480 million annually. Another AUD 650 million is generated in leather exports to 60 countries. The cattle industry of the State produces a GDP of about AUD 2.5 billion annually. Our fertiliser project is in the heart of these vast, rich pastoral lands. The proximity of the cattle farms to our operation gives an extraordinary logistical advantage to our Natural Phosphate Fertilizer. This, combined with a potential higher production that our product can deliver, makes for a compelling economic proposition. As we expand into cattle country, we foresee a solid prospective market for our phosphate fertiliser.”

## **Background**

The agronomic tests were carried out under supervision on a privately owned property where cattle graze on native pasture. This land has never been treated with chemical fertilisers, as is the case with the vast majority of graziers in the region, mainly due to cost. Consequently, many cattlemen are already producing organic grass-fed beef.

Since late 2019 Agua has undertaken a range of agronomic tests on *Pampafos*®, the tests were overseen by Integrar Gestão e Inovação Agropecuária (‘Integrar’), a renowned independent agronomic consulting firm located in RS, which Agua has retained to plan and supervise the program.

The tests were initially focused on the growers near the location of the Phosphate Project. Still, the agronomic trials have expanded across the State to include other regions of high productivity with subsequent increased demand for phosphate. Table 01 below is a summary of the main results so far reported.

**Table 01 – Summary of agronomic test results.**

<b>CROP</b>	<b>HIGHLIGHT</b>	<b>ASX ANNOUNCEMENT DATE</b>
Soybean	<i>Pampafos</i> ® (CBTSAP) applied in soybean crops resulted in a yield of 98% of the yield reached by the TSP in the same P <sub>2</sub> O <sub>5</sub> dosage	16 June 2020
Corn	Green mass and grain productivity of treatment with a dosage of 100 kg/ha surpassed the productivity reached by conventional phosphate fertilisers	9 July 2020
Rice	<i>Pampafos</i> ® returned yields of up to 99.8% of those achieved using conventional fertilisers	11 May 2021
Rice	Rice productivity results using <i>Pampafos</i> ® in a dosage of 50 kg/ha of P <sub>2</sub> O <sub>5</sub> , surpassed the productivity achieved using conventional TSP in the same dosage	8 September 2021
Oat	Oat productivity results using <i>Pampafos</i> ® in a dosage of 100kg/ha of P <sub>2</sub> O <sub>5</sub> , reached 92% of the productivity achieved using conventional TSP in the same dosage	22 December 2021
Wheat	Wheat productivity results using <i>Pampafos</i> ® in a dosage of 50 and 200 kg/ha of P <sub>2</sub> O <sub>5</sub> surpassed the productivity achieved using conventional TSP in the dosage of 90 kg/ha of P <sub>2</sub> O <sub>5</sub>	3 February 2022
Corn	Corn productivity results using <i>Pampafos</i> ® in a dosage of 200 kg/ha of P <sub>2</sub> O <sub>5</sub> surpassed the productivity achieved using conventional Triple Superphosphate (TSP) in the same dosage	1 June 2022

Farmers who buy *Pampafos*® will not only benefit from increased productivity but, most importantly, will benefit from improved soil quality.

## **Agronomic Tests on Native Pasture Fields**

Agronomic tests using Pampafos® fertiliser were performed on native pasture located on a commercial farm at Dom Pedrito – RS.

Brazil is the world's largest beef exporter, and the RS State has the seventh largest herd of beef cattle in Brazil, with 12 million head of cattle and over 9.1 million hectares of pastoral land available for cattle raising. Approximately 7.5 million hectares are native pasture, and the remaining 1.6 million hectares comprise planted pasture. The native pasture is an excellent forage grass for cattle; it has long been the primary food source for cattle in the region.

Pastures, native or planted, represent about 95% of the feed for cattle-raising farms in Brazil, with mass production directly proportional to the increase in cattle weight and consequent beef production.

The tests were carried out on cattle properties with no previous fertilisation history and included three different agronomic treatments. Each treatment was settled in a 1-hectare area, and the phosphate sources, Pampafos and Triple Superphosphate (TSP), were spread on the soil surface. In addition to the P source, each 1-hectare treatment was subdivided into three minor areas with the application of different dosages of nitrogen (N).

Table 02 shows the agronomic treatments installed in the field at Com Pedrito – RS.

**Table 02 – Summary of treatments on native pasture field – Dom Pedrito - RS**

<b>TREATMENT</b>	<b>PRODUCT</b>	<b>N DOSAGE PER HECTARE</b>	<b>P2O5 DOSAGE PER HECTARE</b>
T1	Control	0 kg N	No source of P applied
		45 kg N	
		90 kg N	
T2	Pampafos®	0 kg N	100 kg P <sub>2</sub> O <sub>5</sub>
		45 kg N	
		90 kg N	
T3	TSP	0 kg N	100 kg P <sub>2</sub> O <sub>5</sub>
		45 kg N	
		90 kg N	

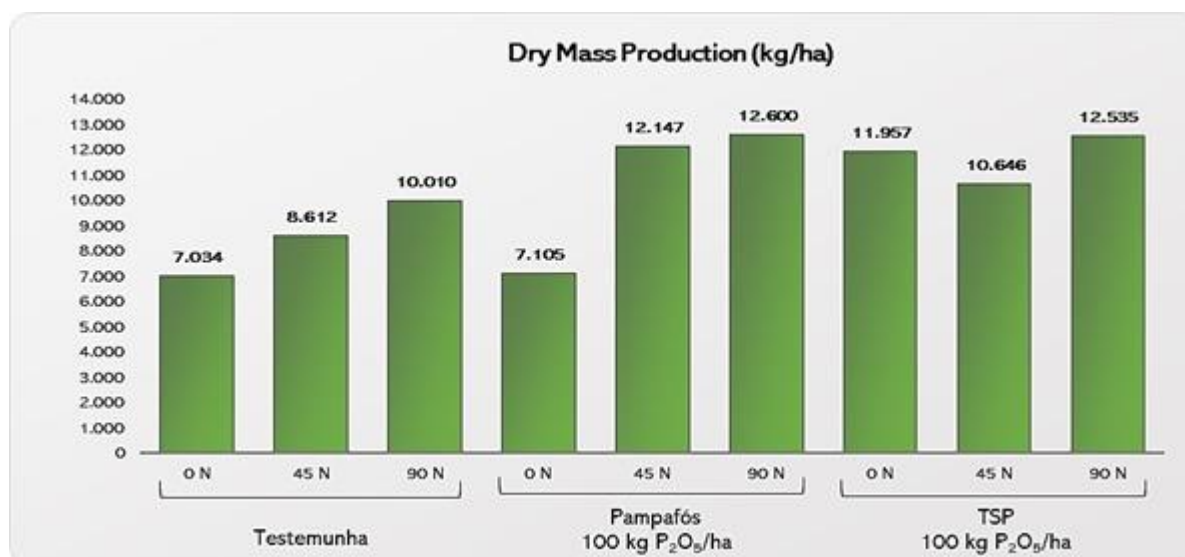
## **Dry Mass Production**

Pasture dry mass production was determined by manually cutting plants' green mass in sample areas. Six areas of 0.25m<sup>2</sup>, randomly selected, were sampled for each treatment. Samples were collected by cutting all green mass from 3 cm from the ground at the end of each season (3 months). Samples were dried at a temperature of 62° Celsius for 72 hours in an oven. The dry samples were weighed, and the dry matter values were calculated in kilograms per hectare (kg/ha).

Treatment T2 with P<sub>2</sub>O<sub>5</sub> applied through Pampafos® resulted in better production levels of dry mass, independently of the dosage of nitrogen in the native pasture field, when compared with the treatment T3 with P<sub>2</sub>O<sub>5</sub> applied through TSP (Figure 01).

The application of Pampafos, T2 with a dosage of nitrogen (45 N), produced 12,147 kg/ha of dry mass, representing a production 41% higher than the Control treatment (8,612 kg/ha) and 14% higher than treatment with TSP (10,646 kg/ha) in the same conditions.

The treatment T2 with a higher dosage of nitrogen (90 N) associated with Pampafos reached a dry mass production of 12,600 kg/ha, maintaining the dry mass production of treatment T3 in the same condition of nitrogen (90 N) associated with TSP (12,535 kg/ha).



**Figure 01 – Production of native pasture dry mass resulting from each treatment. The data were generated over 1 year, with sampling every three months: spring 2021, summer 2021/2022, autumn 2022 and winter 2022 – Dom Pedrito, RS, Brazil.**

**AUTHORISED FOR ISSUE TO ASX BY FERNANDO TALLARICO,  
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**About Agua:**

Agua Resources Limited (“Agua”) 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. Agua has an established and highly experienced in-country team based in Porto Alegre, the capital of Rio Grande do Sul. Agua’s first project, the Três Estradas Phosphate Project is expected to be in production by Q4 2021. Agua 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.