

April 21, 2022

Verde releases Market Study and provides update on new Pre-Feasibility Study

Belo Horizonte, Brazil. Verde AgriTech Plc (TSX: "NPK") (OTCQB: "AMHPF") ("**Verde**" or the "**Company**") is pleased to announce the conclusion of the Market Study (the "**Study**") that will underpin the preparation of the New Pre-Feasibility Study announced by the Company on March 01, 2021 (the "**PFS**").

The Study calculated the potential Brazilian agricultural market for potash ("**Potassium Oxide**" or "**K₂O**"), sulphur ("**Sulphur**"), and the micronutrients zinc, boron, copper and manganese (the "**Micronutrients**" or "**Zn, B, Cu and Mn**"). Sulphur and Micronutrients are added to Verde's multinutrient potassium fertilizer K Forte® (the "**Product**") to produce BAKS®, a product launched by the Company on December 15, 2020, which has a higher selling point. The additional elements contained in BAKS® allow Verde to meet the specific demands of different crops and soil conditions, thereby boosting the overall Brazilian market serviceable by the Company's products.

The Study was conducted between May 2021 and March 2022 and will be an integral part of the PFS. The PFS will contemplate a scenario of total annual production of up to 50,000,000 tonnes per year ("**tpy**") of Verde's Product, equivalent to 63% of the total Brazilian potash consumption in 2021. The PFS will update the market information included in the Cerrado Verde Project (the "**Project**").

The Pre-Feasibility Study completed in December 2017 ("**2017 PFS**") evaluated the technical and financial aspects of total annual production of up to 25,000,000 tpy of Product. The 2017 PFS assumed that a railroad connection was needed to distribute the 25,000,000. Now, based on further and more recent studies for the PFS, the Company has determined the viability of using road haulage for distribution logistics of up to 23,000,000 tpy. A rail spur will only be necessary for logistics of production exceeding such amount, therefore postponing the construction of a railroad access and its related capex.

The PFS contemplates three distinct production scenarios, each modelled in light of the latest Study:

- Scenario A: Annual production of 10Mtpy.
- Scenario B: Annual production of 23Mtpy.
- Scenario C: Annual production of 50Mtpy.

The Company has a combined measured and indicated mineral resource of 1.472 Mt at 9.28% K₂O and an inferred mineral resource of 1.850 million tonnes at 8.60% K₂O (using a 7.5% K₂O cut-off grade)¹. This amounts to 295.70 million tonnes of potash in K₂O. In 2021 Brazil's consumption of potash in K₂O was 7.92 million².

"We find ourselves at a key juncture in the Company's journey, we need to choose between the path of safe expansion or blitzscale to a massive production that supplies the majority of Brazil's potash consumption. The latter is a more ambitious approach that prioritizes Brazilian farmers' need for a reliable and clean potash source, to help them feed the world. We will choose not what is easier, but rather the route that is most aligned to our very purpose: to improve the health of all people and the planet." said Cristiano Veloso, Verde's Founder and CEO.

MARKET STUDY: PRICING

Potash

The value of the Product's potash content was calculated based on the cost of KCl, considering the applicable logistic costs from its arrival at Brazilian ports to its final customer. The price for KCl CFR Brazil port adopted for the Study was estimated at US\$368.65. The average delivered cost to the farmer was calculated at US\$539.16. Table 01 shows the breakdown of KCl cost per tonne delivered to the farmer.

Table 01: Breakdown of KCl cost per tonne delivered to the farmer

Description	Brazil's Weighted Average	
	Amount in US\$	Amount in R\$
CFR Brazil Port Price	368.65	1,768.35
Brazil Port costs ³	25.07	132.87
Demurrage	6.00	31.80
AFRMM ⁴ Tax	8.75	46.38
Cost of transportation from Brazil Port to distributor	37.21	197.22
Average margin added by distributor	81.82	433.64
Average transportation cost from distributor to farmer	12.00	63.60
Total	539.16	2,857.57

Source: Tec-Fétil.

¹ As per the National Instrument 43-101 Standards of Disclosure for Mineral Projects within Canada ("NI 43 -101"), filed on SEDAR in 2017.

² Union of the Agricultural Fertilizers and Correctives Industry, in the State of São Paulo ("SIACESP", from *Sindicato da Indústria de Fertilizantes e Corretivos Agropecuários, no Estado de São Paulo*).

³ The costs of ports and transport from the port to the distributor are represented by the weighted average considering the demand in tonnes for each one of the ports in Brazil.

⁴ Additional Freight for the Renewal of the Merchant Marine. This is an additional charge on freight levied by Brazilian and foreign shipping companies operating in Brazilian ports based on the bill of lading and the cargo manifest.

Despite the Product's inherent qualities as a multi-nutrient product, the calculation of its price per tonne was based on its K₂O content equivalent, without contemplating the additional nutrients and benefits that it delivers. KCl has 60% K₂O whereas the Product has 10% K₂O. Therefore, considering the concentration of potash in the Product, a farmer will pay approximately 6 times less per tonne of Product than per tonne of KCl. As result, the farmers would pay US\$89.86 per tonne of Verde's Product as a source of K₂O.

For the purposes of the Study, the Company assumed pricing of the Product's K₂O content at a 5% discount to conventional KCl as part of its market strategy to accelerate Product trial and adoption across an expanding Brazilian market.

Sulphur

The value of the Product's sulphur content was calculated based on the sale price of sulphur from S-bentonite, a widely available source of sulphur. The price for the Study was estimated at US\$ 410.40 per tonne of S-bentonite. The feedstock purchased and benefited by Verde to produce fertilizer grade sulphur is elemental sulphur. The price for the Study was estimated at US\$ 263.97 per tonne for the feedstock.

Table 02: Long-term price of the feedstock and similar source of sulphur

Description	Feedstock product	Similar product
Material	Elemental sulphur	S-bentonite
Concentration of nutrient (%)	99	90
Price (US\$ / per percentage point per tonne of fertilizer, "ppt")	2.34 ⁵	4.56 ⁶

Source: Tec-Fétil.

Micronutrients

The Micronutrients' pricing was based on the average individual amounts of each Micronutrient, in kilograms per hectare, as applied for different crops in different regions of Brazil based on fertilization needs and alternatives. Crops that use the largest amount of Micronutrients are Soybeans, Corn, Coffee, Cotton, Reforestation, and Sugarcane.

⁵ Taxes and logistical costs already included in the feedstock acquisition value. Long-term cost per tonne of elemental sulphur = US\$ 263.97.

⁶ Sulphur is predominantly applied as an additive to macronutrient formulations (such as N, P and K). Therefore, the nutrient's logistical and application costs are considered in the formulations of the products in which they are found. Long-term cost per tonne of S-Bentonite = US\$ 410.40.

Table 03: Micronutrients' feedstock sources for Verde's Product

Description	Zinc	Boron	Copper	Manganese
Feedstock	Zinc Oxide	Ulexite	Copper Oxide	Manganese Oxide
Concentration of nutrient (%)	20	10	20	55
Cost (US\$/ppt) ⁷	17.14	40.00	111.76	10.70

Source: Tec-Fétil.

Table 04: Long-term cost of similar sources of Micronutrients including soil application cost

Description	Zinc	Boron	Copper	Manganese
Concentration (%)	10	10	20	10
Price (US\$/ppt) ⁸	40.00	113.00	135.00	12.00

Source: Tec-Fétil.

The amount paid by the farmer per tonne of Product as a source of K₂O plus sulphur and micronutrients varies according to the intended concentration of each nutrient. A weighted average price for this Product being a source of K₂O plus sulphur and micronutrients delivered to the farm was assumed at US\$109.19 per tonne.

MARKET SHARE

Future demand estimates for nutrients relied on parameters of total planted area, crop and productivity. In addition, the Study accounted for the percentage of producers that apply each nutrient, in light of crop requirements, supply and fertilization alternatives. These criteria were used to calculate the demand for potash, sulphur, and micronutrients on a state-by-state basis across Brazil.

Potash

The Study detailed the Brazilian market share for potash that the Project will be able to supply. Table 05 presents Brazil's historical consumption of K₂O from 2000 to 2020, and the projected consumption up to 2070, with the equivalent amount of K Forte demand.

⁷ Long-term cost per tonne of feedstock: Zinc Oxide = US\$ 342.80; Ulexite = US\$ 400.00; Copper Oxide = US\$ 2,235.20; and Manganese Oxide = US\$ 588.50.

⁸ Long-term cost per tonne of similar product including soil application cost: Granulated zinc = US\$ 400.00; Granulated boron = US\$ 1,130.00; Granulated copper = US\$ 2,700.00; and Granulated manganese = US\$ 120.00.

Table 05: Historical and projected Brazilian K₂O consumption and K Forte® equivalent

Year	Brazilian K ₂ O Consumption (tonnes)	Equivalent amount of Verde's Product 10% K ₂ O (tonnes)
2000	2,713,562	27,135,620
2010	3,999,706	39,997,060
2020	6,810,773	68,107,730
2030	8,358,971	83,589,710
2070	12,499,412	124,994,120

Sources: ANDA (potash consumption from 2000 to 2020) and Tec-Fertil (potash demand forecast up to 2070)

Sulphur

According to the Study, the Project would be able to supply 11.66% of the Brazilian sulphur market in Scenario A, 27.28% in the Scenario B and 53.78% in Scenario C. Table 06 presents an estimated consumption value for sulphur in 2020, and the projected consumption up to 2070 according to agribusiness growth forecast.

Table 06: Brazilian sulphur consumption

Year	Brazilian sulphur Consumption (tonnes)
2020	1,794,297
2030	2,239,164
2070	3,348,286

Source: Tec-Fertil, 2022 (Calculation of sulphur consumption in 2020 and sulphur demand forecast for 2070)

Micronutrients

The Study detailed the Brazilian market share for Micronutrients that the Project will be able to supply under the three scenarios of production, as shown in Table 07:

Table 07: Targeted market share for Zn, B, Cu and Mn in Brazil

Micronutrient	Zinc	Boron	Copper	Manganese	
Market share	Scenario A (10M tpy)	12.97%	17.61%	12.53%	8.66%
	Scenario B (23M tpy)	29.43%	37.87%	30.46%	24.68%
	Scenario C (50M tpy)	55.73%	62.68%	54.77%	56.06%

Source: Tec-Fertil, 2022.

Table 08 presents an estimated consumption value for zinc, boron, copper and manganese in 2020, and the projected consumption up to 2070 according to agribusiness growth forecast.

Table 08: Brazilian Zn, B, Cu and Mn consumption

Year	Brazilian Consumption (tonnes)			
	Zinc	Boron	Copper	Manganese
2020	25,315	26,831	5,382	10,310
2030	31,967	34,301	6,793	13,265
2070	47,801	51,291	10,158	19,836

Source: Tec-Fértil, 2022 (Calculation of micronutrients consumption in 2020 and micronutrients demand forecast for 2070).

“It is hard to overstate the importance of the Market Study because it underscores Verde's potential market growth in what is the world's fastest expanding agricultural producer: Brazil. More than ever, we will continue working to improve our technologies and to ramp-up our production, aiming to establish Verde's Products as a major brand in Brazil's agricultural scene”, concluded Mr. Veloso.

ABOUT TEC-FÉRTIL

The Market Study was done by Tec-Fértil, a leading agricultural consulting company, founded in 1997 by José Francisco da Cunha.

Mr. Cunha holds an agronomist degree from the School of Agriculture of the University of São Paulo (“ESALQ”, from *Escola Superior de Agricultura da Universidade Luiz de Queiroz*), and postgraduate degrees in Marketing and Finance, with extensive experience in fertilizers, soil fertility, research, commercialization of inputs and technical support in the agricultural sector since 1979.

Mr. Cunha's work is committed to the environment and focused on sustainable agriculture and the efficient and responsible use of fertilizers.

ABOUT VERDE AGRITECH

Verde is an agricultural technology company that produces fertilizers. Our purpose is to improve the health of all people and the planet. Rooting our solutions in nature, we make agriculture healthier, more productive, and profitable.

CORPORATE PRESENTATION

For further information on the Company, please view shareholders' deck:

<https://verde.docsend.com/view/ey7n8ndafmgt2dz>

INVESTORS NEWSLETTER

Subscribe to receive the Company's updates at:

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The last edition of the newsletter can be accessed at: <https://bit.ly/InvestorsNL-March2022>

CAUTIONARY LANGUAGE AND FORWARD-LOOKING STATEMENTS

[This news release contains "forward-looking information" and "forward-looking statements" \(collectively, "forward-looking statements"\) within the meaning of the applicable Canadian securities legislation. The Cautionary Language and Forward-Looking Statements can be accessed at this link.](#)

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