Sage Potash Seeks to Address Supply Chain Security and Sustainability with Domestic US Production

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In my opinion, there are two key themes to consider when it comes to investing in natural resources (over and above profitability of course). The most prominent theme at present is the whole supply chain/security of supply issue that we see unfolding globally, most notably when it comes to electric vehicles as the Western world seems determined to reduce dependency on China.

The other theme that isn't nearly as prevalent right now, but I suspect will increase in priority over the coming months and years, is ***how*** you mine and process your resource. As more and more emphasis is placed on reducing carbon emissions, I firmly believe a premium will start to be placed on the miner or refiner with a lower carbon footprint. Whether that comes from the application of a meaningful carbon tax, carbon credits, or in the fuel business there are RINs (renewable identification numbers), some sort of scorecard to rank which is the more environmentally friendly source.

Sage Potash to focus on US production in the Paradox Basin, Utah

One of the newest publicly traded ventures to embody the above themes is Sage Potash Corp. (TSXV: SAGE). Sage, having just started trading on March 20, 2023, is a Canadian company

developing the Sage Plain Property in Utah and intends through sustainable solution mining techniques to become a prominent domestic U.S. potash producer within the Paradox Basin.

The Paradox Basin in Utah is known to host extensive underdeveloped world-class potash resources (approximately 2 billion tons, according to the US Geological Survey). The Paradox Basin benefits from close proximity to modern infrastructure, low-cost power and electricity, and a skilled workforce in a politically stable and mining-friendly state.

Sage is looking to compete with Nutrien Ltd. (TSX: NTR | NYSE: NTR) and The Mosaic Company (NYSE: MOS) to address supply chain security and introduce sustainable mining practices with domestic US production of potash.

US domestic potash source

But what is the motivation to develop a domestic potash source? For starters, almost 40% of global potash production comes from Russia and Belarus, and that number goes up to 50% if you also include China. Not exactly the "A-List" for U.S. trade at present. However, despite the fact that the U.S. imports 94% of its potash, almost all of it comes from its friendly neighbor to the North (Canada), which is the world's largest producer of potash.

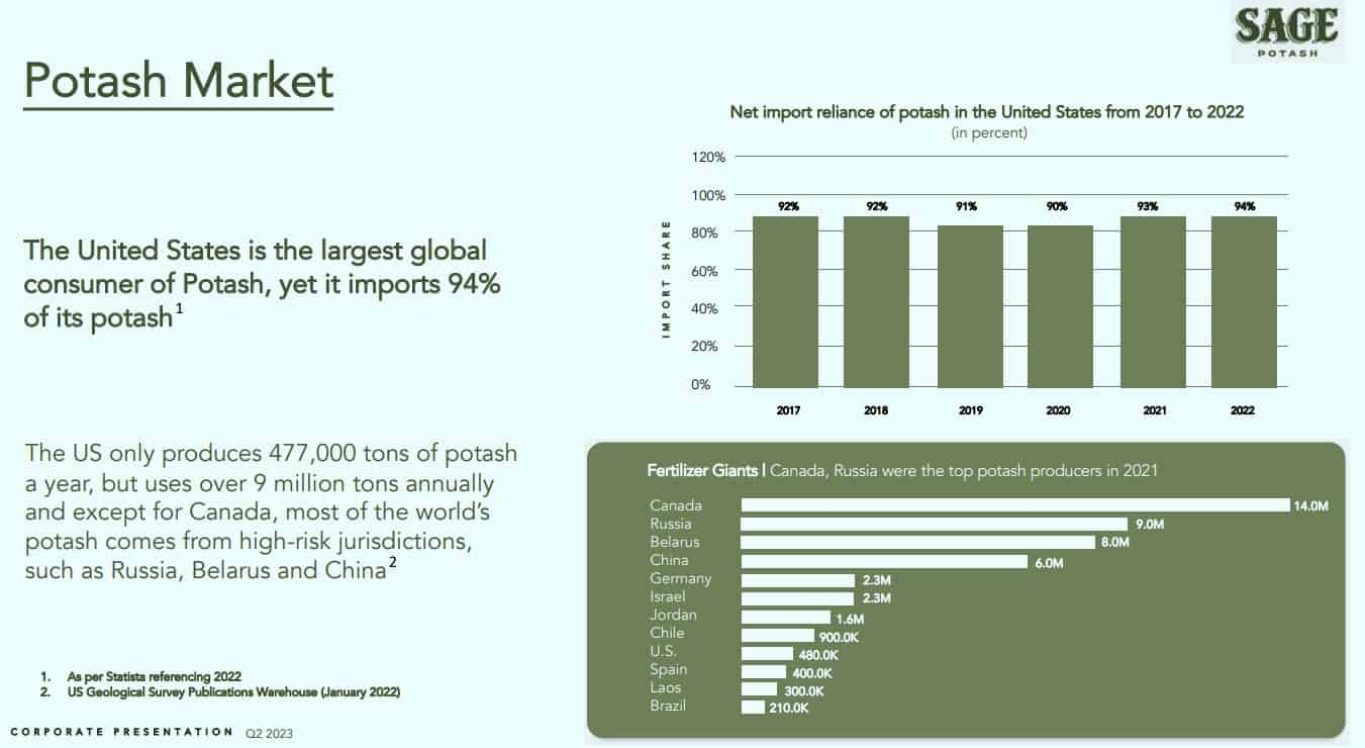
Everyone trusts Canada, don't they? But that's not the point, potash prices rose as much as 87% in 2021, largely due to sanctions brought about by Putin's senseless (and thus far relatively unsuccessful) invasion of Ukraine. Price volatility like that increases the need to have greater control over pricing.

Additionally, shipping costs from Saskatchewan (where the bulk of Canada's potash comes from) and lower barge capacity due to

low water levels of the Mississippi River, can still add $150 – $225/ton to potash costs that would not necessarily be incurred by having local production.

It makes for a reasonably compelling case for Sage to enter the market.

IMAGE 1: The US Potash Market and World Production



Source: Sage Potash Corporate Presentation

Low emission, sustainable production

Then there's investing theme #2 – low emission, sustainable production. The Paradox Basin resource is at an optimal temperature for solution mining, which Sage plans to combine with mechanical evaporation which in turn is "greener" than the more traditional evaporation ponds.

The benefits of mechanical evaporation include reduced water consumption and a reduced land footprint but economical also improves the ability to stage growth through modular units as

well as increasing tolerance to climate/weather impacts allowing for year-round production.

Which all dovetails nicely with the #1 investing priority – profitability. Solution mining and mechanical evaporation should mean lower CAPEX (capital expenses) and lower OPEX (operating expenses) relative to conventional potash operations.

Combine that with lower transportation costs to key markets and most of the boxes are ticked.

Short-term timeline to initial production

Looking forward, the Company's objectives are to complete a step-out geological hole that will further define the resource estimates and may double as a possible cavern development test well, to advance preliminary engineering towards a Preliminary Economic Assessment (PEA), Feasibility Study, and then pilot production.

If all goes according to plan, pilot plant production could be achieved on a short timeline of 1-2 years with the ability to expand from 50,000 to 150,000 tons per year (TPY) for 20 years.

Sage has partnered with RESPEC Company LLC, a leader in potash solution mining consulting and engineering, to undertake the Phase One Program which consists of a step-out geological hole, the Sage 1 Well, located 700 meters (0.4 miles) from the Johnson 1 Well, plus a water brine supply well and a disposal well. With these results, RESPEC will continue with the preparation of a PEA technical report for the Sage Plain Potash project.

Sage Potash currently trades at a market cap of C$23.7 million.