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For immediate release

Stubble Cruncher announces the release of their new Exhaust Fertiliser System

After four years of research and development, Harper's Stubble Cruncher presents the Exhaust Fertiliser System, the next step in conservation farming. The Exhaust Fertiliser System not only offsets your fertiliser costs, it also stimulates soil biology, sequesters carbon, recycles a waste product, and reduces your environmental footprint.

Recycling exhaust gas, which is in essence burnt composted vegetable matter, may seem like a new idea or perhaps a fad, however the benefits of CO₂ to plant growth have been well known since the early 1900's. In 1923 a German gentlemen named Friedrich Riedel designed a process that would utilise exhaust gas containing carbon dioxide for agriculture. Again in 1929 TW Hicks designed a machine that would "prepare the soil for stimulated plant growth" by incorporating exhaust gas from a combustion engine into the soil. The main drawback to these ideas was the complexity of taking 250.c combustion gases and injecting them into the ground in a cost effective way. These challenges were further exacerbated by the wide spread use of artificial fertilisers in the post war period, consequently the idea of using CO₂ faded away.

In the 1960's the process of incorporating exhaust gas from combustion powered water pumps into irrigation water breathed new life into the idea of CO₂ as a plant stimulant. Further ideas for CO₂ incorporation into irrigation, green houses and soil were published in the 1980's and the 1990's however with the development of the airseeder, an implement that is widely used amongst broad acre farmers, it instantly overcame many of the challenges of the 1920's opening the doors for CO₂ enrichment of soils in broad acre farming.

Using any airseeder, Stubble Cruncher's Exhaust Fertiliser System takes the hot exhaust from the tractor, cools it and introduces it into the airseeder fan. This allows the exhaust gas containing Carbon Nitrogen, Calcium, Phosphorous, Iron, Zinc and Potassium to be injected along with warm moist air into the furrow along with the seed.

On farm wheat tissue tests trials have indicated an increase in Nitrogen, Magnesium, Zinc, Manganese and Sulphur levels when compared to other biological fertilisers such as worm juice. Other farmers using a system developed in Canada have had positive results when compared to synthetic fertilisers such as MAP, however further trials and scientific studies are needed to gain a greater data pool and to therefore validate the benefits of the system.

For this to happen a greater uptake in the technology is needed and many of the disadvantages that existing systems have such as cost, size and complexity have needed to be overcome.

The Stubble Cruncher's Exhaust Fertiliser System overcomes these disadvantages and offers an affordable system that is a fraction of the cost of anything on the market in Australia. The system is compact, light and tractor mounted giving greater flexibility for the system to be used with multiple implements. There is no airseeder box modifications needed, the system is so easy to mount it comes with a DIY installation kit.

With the exhaust gas being cooled and monitored using an automated system at the tractor, inexpensive materials such as PVC and flexible hose can be used to convey to air to the airseeder box. This provides high levels of safety with no hot points within reach and reduces crowding of the bar.

The system, environmental and financial benefits make Stubble Cruncher's Exhaust Fertiliser System a logical step in smart, efficient and economical farming.