

Carbon Capture & Offsets / Topsoil Production

Industrial agriculture is a form of modern farming that refers to the industrialized production of agricultural products through various methods, and it is currently the dominant food production system in the United States. However, current methods have many hidden costs. These include costs to human health and safety, damage to farmland and the rural environment, and detrimental impacts on social and economic systems. Ag Carbon Farms and Ag Carbon Solutions have developed the Agricultural Production System (APS; Patent # 11,511,325) that captures significant quantities of carbon, creates new grazing land for cattle, creates new fertile soils, captures nitrates, solves a solid waste issue, preserves landfill space, and provides significant stability for farmers through sustainable agriculture.

The project utilizes the patented Dry Decay Method (U.S. Patent Number 5,558,694) of producing fertile farm soils using a screening system operating on biodiesel or renewable energy. Large carbonaceous vegetative and silvicultural residuals are separated from soils produced and are byproducts of the Agricultural Production System (U.S. Patent # 11,511,325). This byproduct is then used on local farms as an effective carbon capturing agent.

practicing wood burial as a carbon capture technology/methodology for combating climate change. The buried wood locks away the carbon that was taken up by photosynthesis from the atmosphere, thus effectively removing excess CO₂ from the atmosphere, the root cause of climate change.

All in all, this carbon capture system will make industrial agriculture more environmentally friendly and profitable than development, thereby helping to preserve agricultural lands and create new ones in the United States of America. Furthermore, this methodology will address and solve many of the problems and hidden costs of industrial agriculture.

a methodology patented by Ag Carbon Farms and licensed to Ag Carbon Solutions. This methodology is known as the Agricultural Production System (AGRICULTURAL PRODUCTION SYSTEM AND METHOD Patent # 11,511,325).

Articles: “Industrial Agriculture ” from Wikipedia and “ The Hidden Costs of Agriculture” from The Union of Concerned Scientists (ucsusa.org)

““Sequestering carbon in soil, however, is a relatively natural way of removing carbon dioxide from the atmosphere with fewer impacts on land and water, less need for energy, and lower costs. Better land management and agricultural practices could enhance the ability of soils to store carbon and help combat global warming.

The Earth’s soils contain about 2,500 gigatons of carbon—that’s more than three times the amount of carbon in the atmosphere and four times the amount stored in all living plants and animals.

“Thinking about ways to increase soil carbon storage is a really important weapon in the arsenal [against climate change],” said Ben Taylor, an ecosystem ecologist and Ph.D. candidate in Columbia University’s Department of Ecology, Evolution and Environmental Biology. “The carbon in soils is greater than all the carbon in our biomass and the atmosphere combined, so even small changes in that pool are going to have really large effects for us. If we can figure out how to manage that soil carbon pool size, it could be really effective.”

Currently, soils remove about 25 percent of the world’s fossil fuel emissions each year.””

“Carbon Capture Inventory (CCI) . Currently, over 100K tonnes of CO2 offsets have been created by the methodology at RRR. ACS has 50K tonnes of raw material in CCI at RRR, with which to create new additional APS, options and tax credits. ACS has 75K tonnes of raw materials in CCI at ALI to create new additional APS, options and tax credits at RRR.

The law firm of Greenberg and Traurig has been retained to provide the necessary legal work and guidance related to conversion of these parcels' marketable carbon-offset tax credits in accord with provisions of the IRS Rule just cited. It is anticipated that options for these offsets will also be sold. Currently, for the year 2021, these credits are valued by federal mandate at \$35/tonne increasing to \$50/tonne in 2024.

Carbon Neutral Cattle

These created offsets have been allocated to cattle. These cattle will be ear-tagged or branded as carbon neutral.

Ag Carbon Solutions currently has 400 head of grass-fed beef cattle under contract for this

purpose. Ag Carbon Solutions has a target goal of 20,000 head of carbon neutral beef.

“Nature Based Solutions (NBS) can be rolled out to sequester the carbon that is being admitted to give us a bridging mechanism from a fossil fuel dependent economy to a low carbon economy. Some estimates reckon that within the next 10 years, nature based solutions will be 37% of that solution.”

Stewart Maginnis

NBS Group Global Director

In harmony with the Energy Department, we support research and innovation that makes fossil energy technologies cleaner and less harmful to the people and the environment. We’re taking responsible steps to cut carbon pollution, develop domestic renewable energy production, and win the global race for carbon sequestration and clean energy innovation.

Carbon Capture, Utilization and Storage (CCUS), also referred to as carbon capture, utilization and sequestration, is a process that captures carbon dioxide emissions and either reuses or stores it so it will not enter the atmosphere.

[Read More on Carbon Capture Utilization and Storage/Sequestration \(CCUS\).](#)

As our society evolves into the 21st century, we must lobby and pursue legislative change to the current way we make and use energy. Together, with other renewable carbon neutral sources of energy, we must make waste a strong, environmentally safe, and carbon neutral component of energy production.

There is no other more effective or cost-effective way to mitigate climate change. This Nature Based Solution (Agricultural Production System) of soil sequestration can be readily replicated all over the world.

That said, there's no way we can have a lasting impact without the efforts and participation of people around the world. Please, improve your planet by supporting and spreading the word to friends, colleagues, and loved ones.

- This method has a U.S. Patent: Agricultural Production System and Method # 11,511,325
- We will sequester massive quantities of CO2 using this nature based solution.
- There is no other more effective or cost-effective way to mitigate climate change.
- This method of soil sequestration can be readily replicated all over the world.
- All carbon offsets created will be used to offset the carbon footprint of cattle for the benefit of the beef industry.

Carbon Capture Tax Credits - @ Young Pine Road

Narrative and Business Model

The Borrower(s) intend to implement a plan to create Carbon Capture Tax Credits under IRS Rule 45Q, as passed by The U.S. Treasury Department and the Internal Revenue Service on Jan. 6, 2021. Funds would be secured with Collateral Assignment of Rents and leases, as further described herein.

Ag Carbon Solutions (ACS) is owned by their major tenant.

ACS operates under a lease from Acorn Land Inc (ALI) at the 5361 Young Pine Road location in Orlando, Florida.

What ACS does.

ACS charges a fee for loading onto trucks and trailers at local farms inorganic sandy soils, collects handling and/or loading fees from landscaping and construction customers for removal of clean organic materials from their sites and charges a fee for loading onto trucks and trailers organic soils for farming and landscaping. Excavated areas at local farms are refilled following a US patented methodology (licensed from Ag Carbon Farms LLC) using these clean carbonaceous materials to create Agricultural Production Systems (APS). As well as sequestering agricultural nitrates, this methodology creates carbon offsets, carbon tax credits, carbon options, and creates Permanent Agricultural Land (PAL) suitable for conservation easements. These clean carbonaceous materials are diverted from the waste stream and delivered directly to local farms or stockpiled at the ALI site for later delivery to local farms. These clean carbonaceous materials stockpiled at both sites become through a process called the "Dry Decay" method (Patent # 5558694), which creates a Carbon Capture Inventory (CCI) for the facility. A fee to cover handling costs is charged to customers for services rendered in utilization of these carbonaceous materials at either site.

The ALI parcel is located on the access road to the Orange County Landfill (the second largest landfill in the southeastern US). making its location a sustainable source of clean carbonaceous materials to create an abundant and consistent Carbon Capture Inventory (CCI). Currently, over 100k tonnes of CO2 offsets have been created by the methodology at a 72 acre local farm known as the Rolling R Ranch (RRR) at 15851 Lake Pickett Rd. (RRR). ACS has 50K tonnes of raw material in CCI at RRR, with which to create new additional APS, options, and tax credits. ACS has 75k tonnes of raw materials in CCI at ALI to create new additional APS, options, and tax credits at local farms. This former waste wood and related clean carbon products now referred to as CCI will be moved for creation of tax credits and options in accord with IRS Rule 45Q.

The law firm of Greenberg and Traurig has been retained to provide the necessary legal work and guidance related to creating marketable carbon-offset products in accord with provisions of the IRS rule just cited. (It is anticipated that options for these offsets will also be sold). The national accounting firm, Weaver will provide transactional advisory and bookkeeping of these credits and offsets. Currently, for the year 2021, these credits are valued by federal mandate at \$35/tonne increasing to \$50/tonne in 2024.

To perform its work, ACS has certain equipment, including a Komatsu PC 360 excavator with thumb, a JCB 220 excavator with thumb, an L-150 Volvo loader, and a Holland 6-inch hydraulic pump, all operating on biodiesel fuel. The ALI site, in addition to its large inventory of CCI, is landscaped, is chain link fenced, has paved turn outs for accel and decel, has three phase power and meter, an office, three office/bedroom dwelling, county water and sewer, and has been through full commercial review for a commercial agricultural operation with Orange County. The current zoning is A-2 and could be rezoned to industrial as this is the future land use. Three of the four adjacent properties have already rezoned to I-5.

Use of Funds:

\$0.44M - to refinance 5361 Young Pine Road

\$1.1M - for equipment including PG Firebox, and specialty 100cy walking floor trailer

\$0.16M - operating and working capital

[For More Information on our projects, please visit our websites:](#)

Ag Carbon Solutions

<https://www.AgCarbonSolutions.com>

Ag Carbon Farms LLC

<https://www.agcarbonfarms.com/>

The 10x Climate Change Solution

“Climate Change is the defining issue of our time and we are at a defining moment...”
-- The United Nations Climate Change Committee

Phase I of 3 -- Agricultural soil exchange to create Agricultural Production Systems and Permanent Agricultural Land (PAL)

Clean wood and vegetative materials are often termed waste, but if they have a useful end-purpose, then by Federal definition they are not waste. These materials represent 20-30% of global waste, according to the World Bank and the US EPA. So, it follows that finding a cost effective and environmentally sound use for these materials would not only be productive, but would preserve or help eliminate the need for landfill space and

shift these materials from being part of the problem to a major part of a 10x solution to climate change.

As organic and biodegradable materials, these residuals are not a threat to the environment. The issue, however, is that there is so much more of these materials than can be used with current methods that up to now they have been a problem aesthetically.

Chipping and grinding may seem like a good idea, but the industry has far more of these materials than it can use or sell for land application, energy conversion, or other uses. Also, the chipping and grinding process requires the combustion of fossil fuels (mostly diesel), contributing greatly to the carbon footprint of the operation. Furthermore, by not having a use or sale for the chips and mulch, these materials are stockpiled into large compressed piles that pose a serious fire and smoke hazard through spontaneous combustion. Mulch and chip fires sometimes smolder for months at great cost to the operation, the community, and the environment.

These materials also accumulate in great volumes from forests and forestry, in agriculture from tree trimmings and crops, and from urban landscaping.

Traditionally, the open burning of these materials has been the most cost-effective solution and, therefore, the preferred solution worldwide. This is very problematic. According to the Intergovernmental Panel on Climate Change (IPCC) of the UN and many other environmental organizations, the smoke or so called “Black carbon” along with the resulting CO² is one of the greatest contributors to climate change. In fact, open burning of clean wood and vegetative materials results in more than 35% of all

“Black Carbon” in the world.

Ag Carbon Solutions now comes forth with what is a 10x solution to climate change. On August 20, 2020, Ag Carbon Solutions was granted a patent (available on our website, agcarbonsolutions.com) from the US patent office to create an “Agricultural Production System” using these clean woody and vegetative materials.

This process involves a “soil exchange” on agricultural lands whereby inorganic sands and soils are removed and replaced with clean wood and vegetative materials. These materials are then compacted with equipment and a layer of topsoil completes the system. The result is massive carbon sequestration, with the added benefit of agricultural land being returned to its original grade with improved function as grazing land or cropland, all while creating Permanent Agricultural Land (or PAL).

Agricultural farms and cattle ranches thereby receive revenue from the export of inorganic sands and soils to construction projects. These agricultural operations also receive revenue from the import of clean wood and vegetative materials. These new sources of revenue can be vital for the ongoing success of respective agricultural operations. These operations are essential to the production of food and livestock, especially in light of the effects of the COVID-19 pandemic that is predicted to continue through the next year or more.

In addition to the improved functionality of the land as mentioned above, these organic materials help to retain nitrate and fertilizer runoff, preserve landfill space, and cost effectively mitigate climate change up 1000 times more than any existing methods.

For Example: One tree will sequester 48 pounds of CO² per year. One ton of dry carbon equals two tons of wet carbon. One ton of dry carbon equals 3.67 tons of CO². A farm facility using this methodology on average will sequester 100 tons of wet carbon per day. Therefore, one facility sequesters the equivalent of planting 2,792,999 trees per day!

There is no other more effective or cost-effective way to mitigate climate change. This method of soil sequestration can be readily replicated all over the world and unquestionably has the potential to be the new “Moonshot”, “Earthshot”, or “10X plan” for mitigating climate change. Its elegance and simplicity are obvious. It is fully verifiable and easily quantifiable. The 2018 U.S. Farm Bill calls for soil sequestration of carbon. This method has a U.S. patent. This method is supported by research and a white paper from the University of Maryland and the environmental engineers at HSA Golden in Orlando, FL. Any environmental engineer will be able to oversee the veracity of the offsets.

Ag Carbon Solutions has already sequestered 100s of thousands of tons of CO² using this method. Ag Carbon Solutions invites and welcomes individual and corporate participation, either for the creation or purchase of carbon offsets. The revenue generated will be used to vastly expand this plan up to global scale. Participants contributing to the creation of a ton of CO² offset will pay \$50 USD and receive a certificate of creation of the offset and one ounce of fine silver (Ag). The retail price of a one-ton CO² offset will be \$50 USD, with negotiable discounts for bulk quantities. The purchaser of the offset will receive a certificate of ownership of whatever quantity of carbon offset purchased. Our website has a means of measuring individual and

corporate carbon footprints. Creating or purchasing carbon offsets will reduce an individual or corporation's carbon footprint.



ABOVE: SOIL EXCHANGE PROJECT - PASTURE RESTORATION AND IMPROVEMENT - REPLANTING GRASS



ABOVE: PASTURE GRASS GROWING – SOIL EXCHANGE PROGRAM

Phase 2 of 3 – A media push for Consumer Packaging to be made clean burning & biodegradable from renewable materials and scalable Waste-To-Energy pilot facilities are implemented

The second phase of this plan involves Waste-to-Energy. Since consumer packaging is one of the largest components of the waste stream, for this phase to work there needs to be a massive shift in the way consumer packaging is produced. Consumer packaging will need to be made from clean burning, biodegradable, carbon neutral or non-fossil fuel, renewable materials. A massive media push to educate people as to the importance of this change is envisioned.

When it is said solar, wind, and electrification are the answer to climate change the “elephant in the room” of waste is missed. This problem is answered with scalable waste to energy facilities with the components of our trash properly engineered for clean, carbon neutral combustion. This will eliminate or vastly reduce the need for landfills and coal or fossil fuel power plants. These are two huge contributors to climate change. This step will include pilot demonstration facilities like the one planned by Ag Carbon Solutions using an AirBurners PGFirebox to show a proof of concept operation.

“The time for seeking global solutions is running out. We can find suitable solutions only if we act together and in agreement.”

Pope Francis, 266th Catholic Pope

Phase 3 of 3 – Legislative Mandates for PAL, scalable Waste-To-Energy, Certified Clean Burning or Biodegradable Consumer Packaging from Non-Fossil Fuel Materials, and final rules for e-RIN renewable transportation fuel incentives.

Through a progressive media campaign and education process, local and state governments will begin supporting (not opposing) new agricultural methods using woody and vegetative materials (formerly considered waste), specifically in the creation of Agricultural Production Systems and Permanent Agricultural Land (PAL).

A certification process will be implemented that mandates and certifies all packaging to be clean-burning, carbon neutral and /or biodegradable. If this methodology were utilized nationally and quickly globally, climate change could be mitigated at an

unprecedented rate together with the many other environmental benefits previously mentioned.

RINs (Renewable Identification Numbers) are serial numbers assigned to a batch of biofuel used in the transportation sector. These numbers track the production, use, and trading of these fuels as required by the United States Environmental Protection Agency's Renewable Fuel Standard (RFS). RINs are assigned to renewable fuels like biodiesel and allow these fuels profitability in a fossil fuel market.

E-RINs are serial numbers that will be assigned to kilowatts produced for the transportation sector from renewable energy. The legislative mandates for this type of RIN are in place. The specific rules, however, have not been written by the EPA. The completion of this rulemaking will greatly help facilitate, through increased profitability, this new and essential industry.

As our society evolves into the 21st century, we must lobby and pursue legislative change to the current way we make and use energy. Together, with our other renewable carbon neutral sources of energy, we must make our waste a strong, environmentally safe, and carbon neutral component of energy production.

“Climate change is a huge challenge, but it can be brought in line if governments, businesses and individuals work together.”

--- Sir Richard Branson, Founder of Virgin

Group