

Current \$50,000 Campaign

Approximately six months of operating and scientific capacity

Plant biotechnology for carbon drawdown, durable materials, and resilient ecosystems.

Carbocene Industries is an independent nonprofit plant-biotechnology research organization operating a greenhouse, licensed nursery, and field research site in Oakland. We maintain and propagate engineered trees, conduct plant tissue-culture and greenhouse work, develop new plant technologies, and study how biological systems move from laboratory development through cultivation and field use.

Years of engineered-tree research established real biological and operating capability. Carbocene keeps that capability alive and uses it as the foundation for a new generation of independently owned research.

DEMONSTRATED CAPABILITY | CONTINUITY | NEW SCIENCE

PHOTOSYNTHETIC SYSTEMS ENGINEERING

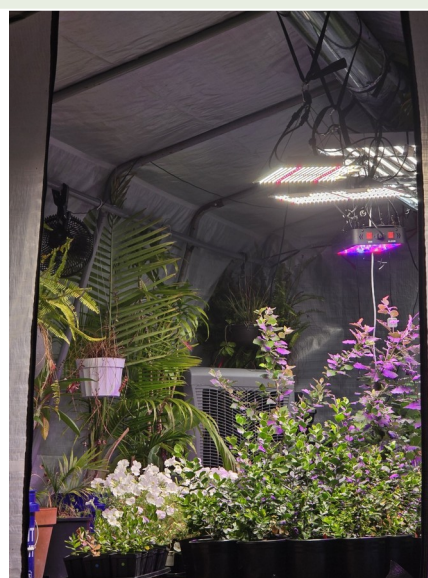
Carbocene is developing a new generation of independently owned engineered trees through systems-level, multi-trait engineering of complementary parts of photosynthesis. The program is designed around coordinated changes to photosynthetic performance as an integrated biological system.

DEER | DEMONSTRATED PLATFORM

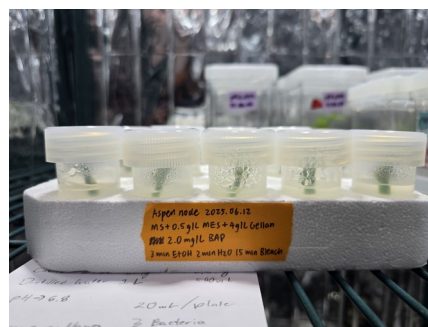
Deer is a photosynthesis-enhanced hybrid aspen carrying a synthetic photorespiration-bypass pathway. Carbocene maintains and propagates Deer under a nonexclusive license for noncommercial research and related nonprofit use within the United States, subject to its terms. Deer remains distinct from Carbocene's independently developed technology.

PLANT TISSUE CULTURE

Carbocene conducts in-vitro propagation and tissue-culture work alongside greenhouse cultivation, field preparation, and measurement.



Carbocene's working Oakland greenhouse and nursery.



Aspen node cultures during tissue-culture propagation work.

FIELD SYSTEMS | PERMACULTURE AND NUTRIENT CYCLING

Carbocene's Oakland field practice connects on-site biochar and compost production with progressive soil building, greenhouse propagation, and mixed crop cultivation. Biochar is made in a char pit primarily from locally grown biomass; the first char came from biomass removed from the future greenhouse site. Pigeon guano, absorbent pumice aggregate, sand, bark, local clay, and other locally recovered nutrient streams are incorporated to improve the existing soil rather than replace it wholesale.

Blue corn, tepary bean, black-eyed pea, sweet sorghum, desert squash, and desert melon are started in the greenhouse and transplanted into field plots as milpa systems.

CURRENT CAMPAIGN

\$50,000 / approximately six months

The campaign supports greenhouse and nursery operations, living research trees, propagation, tissue culture, scientific development, field work and measurement, construct development, partnerships, grant preparation, institutional development, and appropriate partial compensation.

Proposed use of funds	Amount
Greenhouse and facility operations	\$12,000
Scientific work and day-to-day operations	\$18,750
Research trees and propagation	\$7,500
Scientific and technical support	\$3,000
IP, administration, insurance, and governance	\$4,500
Scientific relationships and proposal development	\$2,500
Operating contingency	\$1,750
Total	\$50,000

WHAT THIS CAMPAIGN MAINTAINS AND ADVANCES

- Greenhouse and licensed-nursery operations; living research tree propagation.
- Photosynthetic Systems Engineering and new construct development.
- Biochar, compost, progressive soil building, and nutrient cycling.
- Grant preparation, governance, donor reporting, and institutional development.
- Plant tissue-culture, in-vitro propagation, and laboratory work.
- Field cultivation, ecological observation, measurement, and records.
- University, nonprofit, scientific, field, and technical partnerships.
- Core operating capacity and appropriate partial scientific compensation.

WHY CARBOCENE

Carbocene's intellectual origins precede Living Carbon, which became one important setting in which parts of the broader biological and carbon-systems program were developed. When Living Carbon discontinued development and commercialization of its synthetic-biology tree program, Carbocene was established in its present nonprofit form as an independent pathway for continued research and new development. Patrick Mellor is a cofounder and former CTO of Living Carbon.

Useful plant-biotechnology capabilities can be lost when the company, grant, commercial strategy, or deployment institution around them changes. Carbocene is being built so biological capability, practical knowledge, and field evidence can accumulate over decades and remain connected to measurable physical outcomes.

Support Carbocene Approximately six months of operating and scientific capacity.	Current progress and giving options CARBOCENE.ORG/SUPPORT patrick@carbocene.org	
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Gift terms. Carbocene Industries is an independent 501(c)(3) public charity. Contributions are tax-deductible to the extent permitted by law. A contribution does not provide equity, intellectual-property ownership, exclusivity, governance or research control, access to plants, or commercial rights. The \$50,000 campaign is not the complete cost of a plant-transformation program or major field initiative; no founder-loan repayment is included.