

David Blume

■ Representative Consulting Projects

ANTONIO RAPIMAN COOPERATIVA

WASTE-TO-PROFIT DISTILLATION SOLUTIONS

David Blume hosted leaders of the Rapiman Cooperativa of southern Chile, growers and producers of apples, juice products, and refined peppermint oil, to explore waste-to-profit solutions using an alcohol distilling plant.

CANNABIS EXPO, BOARD MEETINGS, MEET-UPS

REGULATORY-COMPLIANT SOLUTIONS FOR CANNABIS AND HEMP GROWERS AND PRODUCERS

Presentations at Cannabis Business Summit & Expo in San Jose, California, and at regional meet-ups and grower/processor board meetings in Monterey, California, as well as in other regions of the U.S.

COP26

ADVANCED REGENERATIVE TECHNOLOGIES TO REVERSE THE DECLINE OF THE PLANET

United Nations Climate Change Conference UK 2021. David Blume presented information on advanced regenerative technologies for energy generation, water treatment, propulsion, waste-to-value, and food security.

CHINA'S NDRC

WASTE-TO-FUEL JOINT DEVELOPMENT PROJECTS

Invited by the Chinese government and leaders of the National Development and Reform Commission (NDRC) to be part of the Hainan Province China Delegation Tour. Consultations for joint development projects managing waste for fuel.

DARIN OLIEN

IMPROVED WATER MANAGEMENT, FIRE PREVENTION,
AND REMEDIATION OF FIRE-DAMAGED LAND

David Blume advised Darin Olien, producer and co-star of the Netflix series *Down To Earth*, on ways to remediate his 20-acre property that was ravaged by wildfire in Santa Monica, California.

DARYL HANNAH

REDUCTION OF EMISSIONS VIA ETHANOL, SAFETY OF
E15 BLENDING

David Blume co-hosted an educational talk, nationally televised press conference, and radio and media interviews with actress and alternative fuel advocate Daryl Hannah. Using the 1979 Pontiac Trans-Am from Hannah's movie, *Kill Bill*, they demonstrated that adding ethanol reduces emissions and is safe to use in older cars.

DENNIS AND ELIZABETH KUCINICH

DOMESTIC AND GLOBAL WASTE REDUCTION AND
CONVERSION

Multi-day exploration of solutions for the domestic and global need for waste reduction and conversion. Presentations in conjunction with former Ohio congressman Dennis Kucinich and activist-scholar Elizabeth Kucinich.

Eco OLA

REGENERATIVE AGRICULTURE TO MANAGE RAINFALL
AND DROUGHT AND IMPROVE CROP YIELDS

Consultations with the Indigenous farmer cooperative Eco Ola regarding poly-crop and drought-farming techniques to improve diverse crop yields, as well as to improve food, fuel, and energy production prospects for the Indiana and Mazan regions of Peru. David Blume designed and implemented a 20-acre regenerative agriculture farm to manage rainfall and drought and to teach area growers better ways to produce crops and conserve water.

EPA PARTNERSHIP FOR CLEAN INDOOR AIR

WATER RECLAMATION SOLUTIONS AND HELICOPTER-READY ALTERNATIVE FUEL PRODUCTION PLANTS

Unification meeting of the United Nations Global Alliance for Clean Cookstoves, at the Environmental Protection Agency's Partnership for Clean Indoor Air conference. Consulted with Peru's Minister of Agriculture and Minister of Energy and Mining regarding sustainable water management and reclamation and opportunities for helicopter transport of modular building of ecological bioethanol refineries in the Amazon, where road systems do not exist.

IIEA/PROJECT GAIA

CLEAN INDOOR AIR AND APPROPRIATE-SCALE ALCOHOL FUEL PRODUCTION

David Blume and the International Institute for Ecological Agriculture, with support from Gaia International, hosted an International Alcohol Fuel conference in Atlanta, drawing participants from Africa, the Caribbean, and Central and South America.

CHIEF LONGKO NORIN, MAPUCHE NATION

ECONOMIC DEVELOPMENT THROUGH WASTE-TO-PROFIT DISTILLATION AND REGENERATIVE AGRICULTURE

Mapuche Nation tour and consultation. Meetings with Longko Norin, leader of Chile's largest Indigenous peoples community, the Mapuche, and tribal members, regarding economic vitalization of tribal communities with waste-to-profit distillation solutions, regenerative agriculture, and environmental remediation.

MINISTER OF AGRICULTURE, SOUTH AFRICA

WASTE-TO-PROFIT SOLUTIONS VIA BIOETHANOL PRODUCTION FROM DIVERSE FEEDSTOCKS

Consultations with Traverse Le Goff, South Africa Minister of Agriculture, regarding implementation of a 500,000-gallon-per-year distillery to produce alcohol and valuable byproducts in Touwsriver, South Africa, where

petroleum is scarce and expensive and there is much fallowed agriculture land available for repurposing and regeneration.

NASA AMES RESEARCH CENTER

SUSTAINABLE SYSTEMS TO PRODUCE FOOD AND FUEL
ON MARS

David Blume hosted NASA Chief Engineers Douglas Terrier and Omar Hatamleh to share technologies and techniques that can be applied to sustaining life on Mars and in spacecraft in transit, including producing food and fuel using sustainable systems.

NEW ZEALAND

REMEDICATION OF FRESHWATER CONTAMINATION OF
FARMLAND AND WATERWAYS

Feasibility study for the New Zealand government and developers to remediate water pollution from dairy and livestock farming operations.

NICARAGUA MINISTER OF ENERGY

COFFEE PULP POLLUTION SOLUTIONS USING WASTE-
TO-FUEL TECHNOLOGIES

David Blume consulted with the Nicaragua Minister of Energy and Mining, Emilio Rappaccioli Baltodono; with the president of ALBA, the national energy company; and with regional coffee producers. He identified principles and techniques to solve water pollution issues by transforming coffee waste pulp to clean alcohol fuel. He also consulted regarding the use of alcohol-fueled cookstoves to halt national deforestation.

NICARAGUAN SHRIMP COOPERATIVE

REGENERATIVE APPROACHES TO REFRIGERATION
USING ALCOHOL FUEL

Consulted with the leaders of the Nicaraguan Shrimp Cooperative on regenerative concepts, including using alcohol fuel to create non-electrical refrigeration systems to allow produce growers to extend harvest seasons, as well as avoid time-to-market pressures.

PUMP

STORYBOARD CONSULTANT AND INTERVIEWEE

Documentary film *PUMP*, by Joshua Tickell and Rebecca Harrell Tickell. David Blume was interviewed in the film as an industry expert and served as storyboard consultant.

SAM FARR AND CALIFORNIA MAYORS

COMPLIANCE WITH METHANE OFF-GASSING
REGULATIONS, ZERO-CARBON FOOD-WASTE
SOLUTIONS

David Blume hosted tours and consultation meetings with former congressman Sam Farr and mayors from Richmond, King City, Monterey, and Marina, California, regarding the implications of California State Law 1383 regulations governing methane off-gassing from landfills. Blume presented zero-carbon solutions for optimizing food waste.

SANTA CRUZ COUNTY, CALIFORNIA

WASTE-TO-PROFIT AND REGENERATIVE AGRICULTURE
MODELS FOR PRODUCING ALTERNATIVE FUELS AND
ENERGY

Think Local First event, Santa Cruz, California. David Blume hosted and presented to government and media regarding waste-to-profits and regenerative agriculture models for energy and alternative fuel production.

SIPCHEM

BIOETHANOL REFINERY TO MAKE 3 MILLION GALLONS
A YEAR

Consultations with Sipchem CEO Dr. Al-Othaman regarding joint development of a 3-million-gallon-a-year biorefinery in Saudi Arabia.

SIR RICHARD BRANSON

MAKING ALCOHOL FROM PLASTIC OR KELP TO
REPLACE MARINE DIESEL FUEL AND TO PROVIDE
ORGANIC SANITIZER AND BEVERAGE-GRADE ALCOHOL

Tech Meets Capital Symposium with Sir Richard Branson. David Blume explained how Branson's Necker Island can contribute to clean ocean and climate change mitigation while providing for its residents and guests.

THOMSON SINKALA, THOMRO INVESTMENTS

MULTI-PHASE BIOFUEL AND REGENERATIVE
AGRICULTURE DEVELOPMENT PROJECT

Consultations re planned development in Chilipi, Zambia, of a biorefinery to generate 2.5 million liters per year of high-value alcohol-based products, along with byproducts: bioethanol, clean cookstove fuel, antiseptic alcohol, organic soil amendments, and livestock feed.

UNITED NATIONS GACC

EMPOWERMENT OF WOMEN VIA ALCOHOL FUEL
STOVES TO PREVENT DEFORESTATION

David Blume presented a program for the empowerment of women on behalf of the United Nations' Ghana Anti-Corruption Coalition. Shared information on low-cost and durable alcohol fuel stoves as a healthy, ecological replacement for wood-fire cooking throughout the Amazon.

UNITED STATES DEPARTMENT OF AGRICULTURE

CROP WASTE OPTIMIZATION FOR FERTILIZER
PRODUCTION AND WASTEWATER RECOVERY

David Blume was a featured presenter at the week-long symposium in Panama City sponsored by the USDA Research Services Division. Consultations with more than a dozen Ministers of Agriculture.

UNITED STATES EMBASSY

SUSTAINABLE RESOURCE DEVELOPMENT IN ZAMBIA

David Blume was a featured presenter at the U.S. Consulate in Lusaka, Zambia, discussing ways to provide significant energy, food, employment,

and environmental benefits. Project consultations and meetings, including with Dora Siliya, Zambia Minister of Energy.

■ **Representative Additional Projects**

- Consulted in New York City with ambassadors from Haiti and Madagascar and the United Nations Renewable Energy Team.
- Consulted on queries from governments and companies in Ghana, Nigeria, Madagascar, Liberia, Kenya, South Africa, and Haiti, and in South America.
- Developed specifications for the Africa Small-Scale Ethanol Project of the United Nations Development Programme.
- Participated in the United Nations Clean Energy Conference.
- Presentation to the Indigenous farmer community in Iquitos, Peru.
- Presented at key industry trade shows, including talks at the BIO International Convention and the National Farmers Union.
- Presented energy independence and earthquake recovery solutions for Haiti at SImACT's New York headquarters.
- Presented multi-phase project proposal to the largest energy company in Nicaragua.
- Presented proposal regarding alternative fuel production and system implementation, Managua, Nicaragua.
- Met with government and private industry decision makers in agriculture and energy throughout Latin America.
- Met with the Honduran Ambassador and government officials at the Latin American Energy Organization (OLADE) in Mexico.
- Site consultations and proposals for waste-to-fuel projects in Morelia, Mexico; Davao, Philippines; and Chinandega, Nicaragua.
- Waste-to-fuel proposal presentations to the Department of Public Works, City Council, and Department of Parks and Recreation in Hannibal, Missouri, and to the Mayor and City Council of Clarksville, Missouri.
- With the International Institute for Ecological Agriculture, hosted five national workshop programs targeting needs of farmers, community leaders, business entrepreneurs, and educators.