

MATTHEW K. S. LYUM

WORK EXPERIENCE

PERFORMANCE LANDSCAPES

Owner - July 2002 – Present

Developed business plan and cash flow projection using Excel spreadsheets. Based on plan and starting with 2 employees, company has grown to over 115 employees in 18 years with 200+ maintenance, design, and installation contracts. Oversee all financial, administrative, and operational parameters of company. Negotiate contracts with property managers, vendors, subcontractors, insurance agents, and lending institutions.

M.L.C. INTERNATIONAL LLC

Principal - April 1993 - Present

Technical consultant in areas pertaining to operations, planning, or permitting of organic waste management operations, sustainable technologies, aquaculture operations, or related fields. Clients include: Winer, Meheula, & Devens attnys; Kimura International Inc.; Wuridul Inc., Korea; Sustainable Technologies Inc. Maui; Foundation for Advanced Communication & Environmental Technologies, Washington D.C.; Hansung Enterprises, Korea; Canada Composting Inc., Canada; Hawaiian Earth Products, Ltd., Hawaii, National Parks Service, USA.

EROSION CONTROL SPECIALISTS LLC – August 2013 – Present

Owner – Hawaii's Licensed manufacturer of Filtrexx compost socks. Used recycled mulch to make BMP's to prevent storm water runoff from construction sites and other disturbed soils.

UNISYN BIOWASTE TECHNOLOGY

General Manager – April 1989 – April 1999

Managerial Responsibilities - Responsible for overall operation of the UNISYN plant. This plant anaerobically digested and composted about 50 U.S. tons/day of food and vegetative wastes on the island of Oahu, Hawaii. UNISYN's Waimanalo plant was one of the largest successfully operating food waste digestion plant of its type in the world. The plant produced 250 kWe (the plant supplied all its power internally with power export potential). Responsible for supervision of 37 employees, general operation, and plant troubleshooting. Managed development of waste processing, fertilizer production, spirulina algae production, and computerized equipment maintenance. Managed several construction and equipment installation/retrofit operations since the beginning of plant operation. Assisted in forecast planning and financial analysis.

Marketing Responsibilities – Development of marketing plan for expansion of waste recycling services. Brought in over 40 new accounts in four months based on plans. Involved with development and execution of marketing plan for spirulina algae, organic fertilizer and compost products produced at plant.

Research Responsibilities - Fertilizer and feed product development and analysis, design and operation of diet testing studies in aquatic species and coordination of tests at various research institutions, utilization of anaerobic digestion effluent in different aquaculture/agriculture systems including spirulina.

Other Responsibilities – Permitting and regulatory discussions with various State and County agencies. Occasional media interviews and coordination, and other public presentations. Involved in development of legislation for state environmental laws in 1993 Environmental Summit.

KALLARA STATION B N.S.W., Australia

Consultant – March 1989

Site assessment report of Kallara Station's aquaculture potential. Surveyed 130,000 acre site, and water source (Darling River). Visited existing aquaculture operation in area and met with researchers and commercial growers.

AMORIENT AQUAFARM – Kahuku, Hawaii

Farm Manager - December 1987 – February 1989

Managed production, processing, and maintenance crews and oversaw sales staff on this 143 pond, semi-intensive aquafarm. Major crop was marine shrimp, but also raised freshwater prawn and several species of fish. Responsible for staff of over 30 full time employees. Schedule covered 24 hrs/day, 7 days/week. Equipment on farm included diesel and electric pumps, air blowers, trucks, tractors, PTO driven paddlewheels, automatic shrimp peeler, electric paddlewheels, AirO2 units, generators etc. Production averaged near 40 K lbs/ month. Sales were fresh wholesale to distributors or restaurants, and retail through company owned restaurant.

EDUCATION

Bachelor of Science in Fisheries, Aquaculture Degree. University of Washington, Punahou School Diploma,

Business Training Courses: Project Management, Dealing with Difficult People, Guerrilla Sales, Administration and Management of Budgets, How to Fire, Basic Supervisory Skills, Advanced Excel, QuickBooks.

Technical Classes: Basic Welding, Basic Electricity, MP2 Maintenance Software Management, Commercial Trucking Safety, CERWA Composting Workshop, Workshops on penaeid diseases, fish nutrition, ornamental fish spawning, WCC landscape irrigation Course, Paige Certificate of Irrigation Wire Splicing/Shielding Methods.

PUBLICATIONS/PRESENTATIONS

Valuable Lessons Learned From Hitting Pitfalls and Potholes. Biocycle Northeast Conference, Burlington, Vermont, August, 2000.

Use of Clove Oil for Anesthetizing Freshwater Ornamental Fishes. Clyde S. Tamaru, Sea Grant Extension Services/Aquaculture Development Program, Matt Lyum, Sea Grant Extension Service/MLC Services June, 2000

The Life and Times of an Organics Recycling Company. Biocycle Magazine. JG Press November, 1999.

Production and Use of High Grade Compost. Hawaii Turfgrass Association and Hawaii Association of Nurserymen 1998 Annual Conference. October 2, 1998. Honolulu, Hawaii.

Commercially Successful Biowaste Technology: A Case Study from Hawaii. 14th Trade Mission to the Philippines. Sponsored by DBED & T, State of Hawaii, and Filipino Chamber of Commerce of Hawaii. January 1998. Presented in Manila, Puerto Princessa, and Ilo Ilo, Philippines.

The Anaerobic Digestion of Food Waste in Hawaii. American Public Works Association Hawaii Chapter Annual Meeting, November, 1997 Honolulu, Hawaii.

Unisyn Biowaste Technology Process Description. Fifth National Renewable Energy Lab Enterprise Growth Forum sponsored by the U.S. Dept. of Energy. July 30-31, 1996. Kansas City Missouri.

The Role of Private Industry in an Examination of Sustainable Energy Sources and their Practical Use in the Pacific Islands. The 4th Pacific Islands Area Seminar on Alternative Energy and Ocean Resources. November, 1993, Tokai University, Honolulu, Hawaii.

Intensive pond culture of *penaeus vannamei* in Hawaii. 1986 World Aquaculture Society Meeting. Guayaquil, Ecuador.

CERTIFICATES/ASSOCIATIONS

Certified Landscape Professional – Professional Landcare Network
Landscape Industry Council of Hawaii – Director/Treasurer/CLT State Chair
Hawaii State Farm Bureau – Member – South County
Past – President/Director, Waikalua Loko I’a Fishpond Preservation Society (501C3)
Restricted Use Pesticide License C50222
Contractor’s RME License C-24145
Hawaii Real Estate Commission License
First Aid/CPR Certified
N.A.U.I Scuba Certification

REFERENCES