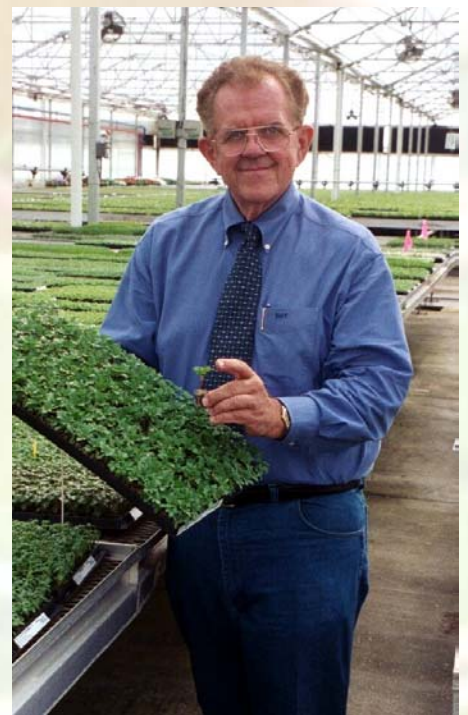


Thomas Seedling Technology Systems



*Division of
Berl Thomas and Associates, Inc.
Bradenton, FL USA*

INTRODUCTION

THOMAS SEEDLING TECHNOLOGY SYSTEMS (TSTS) was established in order to fulfill the increasing global demand for seedling technology, with strong emphasis on China and other countries. Seedling technology holds the key to higher quality flowers, fruits, vegetables, tobacco, and forestry products. Joint ventures between TSTS and other partners will be developed to promote new and modern environmental horticultural seedling technology leading to improved production output and economic benefit to the enterprises.

In 1991, Dr. Berl Thomas, as president of the largest seedling company in the world, began investigating setting up seedling technology systems in China. Dr. Thomas saw the need for advanced, new and modern seedling systems in China, if China was to create new products for the demands of the domestic market and future export of high quality agricultural products. The introduction of advanced seedling systems in China was originally made by Dr. Thomas. He has traveled extensively throughout China since 1991 and has given numerous presentations on the benefits of seedling technology, drip irrigation, and soil-less media.



*Seedling of Begonia Semperflorens
USA Flower Seedling Facility*

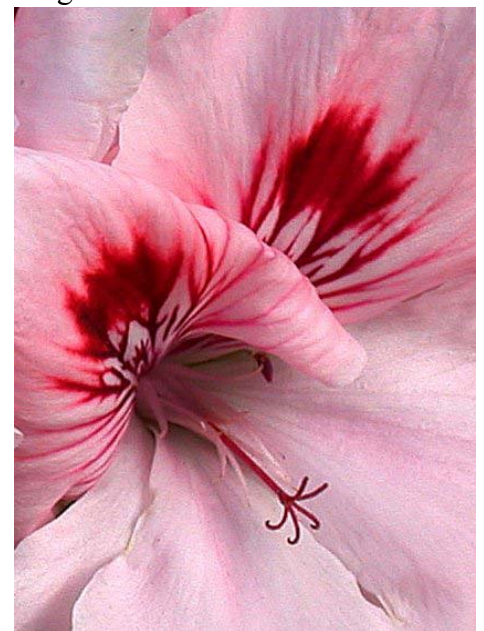
The increased demand for quality horticultural products, improved benefit from production, increased efficiency of land use, increased quantity of food for a growing population, increased demand for exporting quality vegetables, fruit and flowers, and the self-sufficiency in forest (wood) products has lead Dr. Thomas to introduce “Advanced New and Modern Environmental Horticultural Seedling Technology Systems” to both private companies and government state-owned enterprises to satisfy this demand.

PERSONAL BACKGROUND

Dr. Berl Thomas, as the director of research for the Louisiana Land and Exploration Company, researched development on seedling production from 1967 to 1970. During these years, he researched over 50 different cropping systems. From 1970 to 1973, Dr. Thomas continued research and development activities for the Florida Celery Exchange where seedling systems were



*Greenhouse for Production of High
Quality Vegetable Transplants - USA*



developed for celery. It was during this four year period that Dr. Thomas developed over 17 different seedling tray designs for seedling production and that the first automatic rotary drum seeder for precision seeding of seedling trays was invented. From 1973 to 1983, Dr. Thomas joined a newly formed company, Speedling Incorporated, for the production of vegetable seedlings. During these 11 years Dr. Thomas held several positions, including: Director of Research and Development, Director of Technology, Vice President of Speedling, and finally, President of Speedling Nursery Division.

Since the early 1970's, over 100 different crop seedling systems were developed by Dr. Thomas.

Some examples of these seedling system innovations by Dr. Thomas are: fourteen white Expandable Poly Styrene (EPS Foam) seedling trays, which are considered the worldwide industry standard, specialized



Dr. Thomas Evaluating Poinsettia Crop Progress

seedling media recipes, improved greenhouse designs, developments of seed treatment and storage methods, and production technology software systems for vegetable, tobacco and ornamental seedlings. Speedling grew 650% during this period of business growth for the company and expanded into two divisions to include operations in Florida and California. Additionally, Dr. Thomas served on the Board of Directors of Bedding Plants Incorporated and as a Founder, Member, and President of the Bedding Plant Foundation, USA.



Expanded Polystyrene Seedling Trays – Part of TSTS System for Seedling Production

In 1983, Dr. Thomas formed his own company, Plant Gro. He became the Chief Technical Advisor to many vegetable seed companies and vegetable and flower seedling companies in the USA, Mexico, Japan, and other countries to improve their seed production and seedling technology. Also, Dr. Thomas was appointed by the Governor of Florida to serve as a member and President of the Florida Seed Advisory Council. In 1985, Dr. Thomas formed a partnership company, Horticultural Options, a Florida based company, which designed, manufactured and marketed expandable polystyrene seedling (EPS) trays for the USA market. In 1986, Dr. Thomas continued to expand his private business holdings and formed a horticultural seed and supply company,



T and C Supplies, Inc., to supply vegetable seeds and greenhouse supplies to the USA wholesale market.



High Quality Flower Seedlings – USA

and Garden News publication in Beijing, China and other grower publications in USA and Europe. Since October 1999, Dr. Thomas was appointed by the Governor of Yunnan Province, China as Agriculture Advisor to the Yunnan Advisory Mission for Social and Economic Development. Recently, from 2001- 2002, Dr. Thomas served as President and CEO of Twyford International, Inc., the largest tissue culture production company in the world, which has one of the most comprehensive collections of patented foliage plants in the world. During this period, the color (flowering) plant product division was created to market flowering plant products developed from plant breeding programs of parent company Kirin Brewery, Twyford breeding programs, contract breeders to be sourced outside the company.

Dr. Thomas holds several patents related to seedling technology systems. This expertise and extensive technical and management experience, over the past 35 years, has lead Dr. Thomas in the development of new and modern environmental horticultural seedling technology systems and the establishment of “THOMAS SEEDLING TECHNOLOGY SYSTEMS”.

From 1991 to 1999, Dr. Thomas returned to Speedling Incorporated to serve as President of the company and expand the company from three locations into ten locations, including two locations in China in eight years. In addition to the seven additional nursery operations, Dr. Thomas established three other income divisions for Speedling Incorporated: Horticultural Supply, Soil Media manufacturing, and Automatic Transplanting Services. In eight years, the company grew over 250% in sales. Meanwhile, as a result of new seedling technology systems introduced by Dr. Thomas, the tobacco industry in the United States converted to using a new and modern seedling technology system through which involves the use of a continuous tray float system specifically designed for tobacco.

In 1999, Dr. Thomas formed another technology advisory company, Berl Thomas and Associates, Inc., which is the parent company of THOMAS SEEDLING TECHNOLOGY SYSTEMS. Dr. Thomas is a Correspondent for China Flower



Dr. Thomas Evaluates New Tobacco Float Seedling System for Yunnan Tobacco



Profile of a Uniform Seedling Tray of the Flower Impatiens

HISTORY

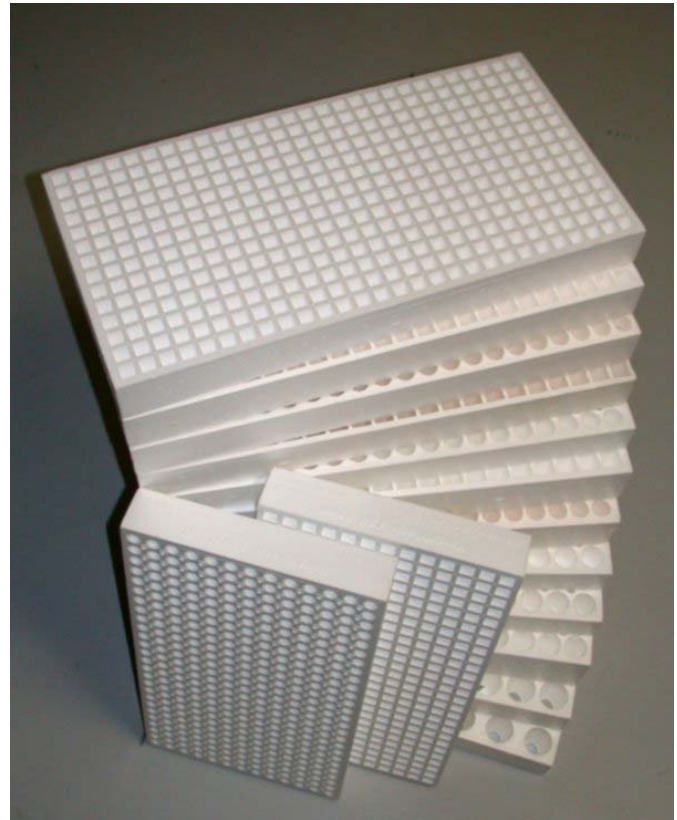
Horticultural seedling technology was developed over the past 35 years. This technology was invented to: 1. improve the uniformity of plant production, 2. improve the efficient use of seed, 3. improve the production volume per hectare, 4. improve quality of production allowing for higher product price markets, 5. increase the number of crop cycles on the land each year, 6. reduce disease problems and 7. reduce the time from planting to harvest.

Today new and modern environmental horticultural seedling technology system consists of a system designed to incorporate several components such as seedling trays selected for each crop, artificial media engineered for each crop or tray system, irrigation systems, seeding equipment, pesticide spray systems, custom designed water soluble fertilizer, climate controlled greenhouses, and many more related areas for a total system package.

THOMAS SEEDLING TECHNOLOGY SYSTEMS are a result of 35 years of research, development, design, patents, systems development, production technology, business management and global seedling technology.



Various Cell Sizes of Vacuum Form Trays for TSTS System



Expanded Polystyrene Trays, With Sealed Surface Technology - Part of the TSTS System

In 1968 seedling technology emerged and by 1979 there were approximately 10,000,000 bedding plant and pot plant seedlings (Plugs) and 200,000,000 vegetable seedlings (Transplants) produced in the USA. In 1979, no tobacco or cut-flower seedlings were produced from these advanced seedling systems.

Currently, it is estimated that 50 billion seedlings are produced each year globally. In the USA 100% of fresh market tomato, fresh sweet pepper, fresh eggplant, cut-flower, 95% of tobacco plants, and 90% of all bedding plants are produced from these new and modern seedling methods. In addition to the fore mentioned crops, forest trees, watermelon, cantaloupe melon, honeydew melon, strawberries, celery, citrus, cauliflower, broccoli, lettuce, Brussels sprouts, nursery crops and many other crops are produced using advanced seedling technology systems.



High Quality Vegetable Seedling Production - USA

Growers and farmers have improved their economic benefit due to the improvements they found using the new and modern seedling systems. They have seen the benefits of this seedling system in terms of reduced water use during the production of the seedlings, reduced time in the field, improved management of weed control, efficient use of water, efficient use of fertilizer, reduced use of pesticides, allows for introduction of other production management systems, which will lead to modern agricultural field production management systems.

“Advanced New and Modern

Environmental Horticultural Seedling Technology Systems” is the first phase of any modern agriculture system. It starts with efficient use of seed, obtaining maximum potential from each seed and having a highly productive seedling resulting in high quality and uniformity of the final agricultural product. This new and modern seedling system will improve the chance to export international quality agricultural products such as fresh market and processed fruits and vegetables, fresh cut-flowers and many other agricultural products.



High Technology Greenhouse Systems for Efficient use of Natural Light



High Technology Seeding Equipment for Quality Seedling Production

THOMAS SEEDLING TECHNOLOGY SYSTEMS

THOMAS SEEDLING TECHNOLOGY SYSTEMS (TSTS) are custom designed for each customer or joint venture partner depending upon the geographical location, crops to be produced, and goals of the future seedling company. TSTS will develop the overall plan, design the system, evaluate irrigation suitability of water source, design greenhouses for geographical weather conditions (wind, rain, humidity and snow), select and approve seedling trays for production, engineer soil-less media for production, select seeding equipment, contract for all equipment and greenhouses, design the training program, and design the software (production methods



Modern Greenhouse Systems



Varied Greenhouse Types Available for Different Climatic Needs

and standard operational procedures) such as environmental controls, nutrition management, moisture management, seeding procedures, pH management, crop production management, water quality, media quality and overall greenhouse management. Dr. Thomas will serve as an advisor for the new company on a year to year basis, according to terms of the business agreement.

The total seedling system objective is to create a company with economical benefit for the customer, based upon sound new and modern agricultural technology.



Equipment for Uniform Application of Water and Fertilizer to Improve Seedling Quality



Seeding Equipment for TSTS Growing Systems



High Quality Tomato Seedlings

To Become a Licensee for Thomas Seedling Technology Systems
Contact:



DR. BERL THOMAS
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Colorful Varieties of Leafy Vegetables in Seedling Production Facility