Ball Horticultural Company
2016 Summer Internship Program

For well over two decades, Ball Horticultural Company has offered a wide variety of internships to students majoring in Horticulture, Plant Science, Agribusiness, and related fields. Each year, our internship projects are linked to specific business initiatives, which encompass a range of horticulture disciplines including advanced research, breeding and genetics, marketing, business operations, production, and trialing. All internships require a minimum of Junior-level standing at an accredited, four-year university or college. Historically, Ball interns arrive with significant academic and/or related extracurricular accomplishments, although consideration is also given to those students demonstrating exceptional promise. When applying for these internship projects, students should consider the following:

→ All internships are offered during the summer months for a period of 10-12 weeks.

→ Start and end dates are relatively flexible, depending upon the student’s availability and the needs of the department; we prefer interns start no later than the Tuesday after Memorial Day.

→ Unless otherwise noted, internships are located in West Chicago, Illinois, which is a suburb approximately 35 miles west of Chicago.

→ Rate of pay is $12.00 per hour. Students work a minimum of 40 hours/week; some internships require overtime during critical periods.

→ We provide fully furnished and appointed apartments in a nearby apartment complex and absorb the majority of the rental costs. The student portion of housing is $200.00 per month. Food, transportation and other living costs are the responsibility of the student. Students are required to have their own transportation since housing is not within walking distance from work locations and public transportation is not available.

→ A major goal of the program is to expose students to multiple aspects of our business operations; presentations and tours of departments throughout the corporation are provided during the summer. Similarly, interns are expected to participate in company and industry events including AmericanHort’s Cultivate ‘16 in Columbus, OH and Ball Customer Days.

→ All internships culminate in mid-August with a final presentation made by each intern on his/her experiences and accomplishments; these presentations are made to members of Ball’s Management Teams.

→ The application deadline is February 29, 2016. Intern selections will be determined by March 15, 2016. All applicants will be notified of our decisions.

Students interested in pursuing one of these internships should forward a cover letter and resume to:

Ball Horticultural Company
Attn: Mike Williams
622 Town Road
West Chicago, IL 60185
630-231-3600, ext. 3308  E-mail: mwilliams@ballhort.com
Fax: 630-231-3592  www.ballhort.com
Description

There are a number of plant culture research projects underway to assist grower customers in optimizing the growth performance of PanAmerican Seed genetics. The intern will participate in selected research trials of key crops.

Responsibilities include assisting in designing protocols, implementing experiments, collecting and analyzing data, and writing reports to communicate findings with internal and external customers.

The student will be involved in projects addressing following objectives:

1. Quantify the effects of drought stress on germination of Wave Petunia varieties in stage 2
2. To quantify the effects of vermiculite cover on germination of Calibrachoa under drought stress
3. Quantify the length of juvenility stage in various Wave Petunia varieties
4. Quantify the effects of temperature on Celosia in petri
5. Quantify the effects of cold shipping on ornamental peppers

Experiments may be adjusted based on time and resource availability.

Requirements

Junior or senior level student majoring in horticulture with an emphasis on greenhouse production or young plant production research is ideal. This internship requires intermediate-level proficiency with MS Word, Excel, Outlook and PowerPoint. Selected intern must be self-directed and have the ability to organize and prioritize their work, as well as work a flexible schedule during peak periods. Similarly, this hands-on internship requires that the student is able to work under a variety of environmental conditions, including heat and humidity for prolonged periods of time, as well as lift 20+ pounds and perform physical labor.
MARKETING COMMUNICATIONS INTERNSHIP

WEST CHICAGO, ILLINOIS

Supervised by: Tim Duffin

**Description**

Our Marketing Communications department is responsible for all Ball electronic and print media, promotion and marketing activities, including print and online product catalogs (via IOS and Android app), sales tools, trade and consumer advertising, and website management. The intern will gain exposure via a broad-based marketing internship that focuses on documenting corporate garden events through photography and video, utilizing social media to promote brands and corporate initiatives and helping the Marketing Communications team update our cataloging of existing plant photography.

**Gardens – Photo and Video Documentation:** Digital documentation of summer garden plantings and events. Primary benefit will be for the landscape initiatives of all Ball business units, with additional benefits of providing readily accessible digital images for web promotions and for building the portfolio database of corporate images. The photography will capture:

- Priority products in a landscape setting including sequential photography: installation, initial fill-in, mature bed, longevity
- Grounds documentation, Installation of event signage
- Customer interactions at events in The Gardens

**Social Media:** Projects will include assisting various Ball divisions’ use of social media to support product lines and brands (Burpee, Darwin Perennials, Wave, etc.). Assignments may include participation on:

- Garden Chat, currently running Monday nights 9pm eastern time, several other floriculture suppliers are on this chat
- Garden Chatter is another chat we may start getting involved in on Google
- Twitter, Instagram and Facebook

The intern may participate up to 5-10 hours each week on the above social media outlets.

The Intern will take direction from Marketing Communications Account Executives (AEs) & Public Relations Manager (PRM) on the digital imaging and social media activities. Additional assignments may include assisting with updating the digital photo library, adding copy to new product portfolio catalogs.

**Requirements**

Junior or senior level student majoring in horticulture, agribusiness or related field with an emphasis and/or strong personal interest in marketing and product promotion. Knowledge of web, app, and social media platforms (i.e. YouTube, Vine, Instagram, Pinterest and Twitter) is a strong plus, as are basic skills in digital photography and video. This position requires a person who has good communication and computer skills. In addition, individual should be a self-starter and have strong organizational skills.
The Gardens at Ball Trials Internships (2)
West Chicago, Illinois
Supervised by: Rachel Prescott, Sam Schmitz

Description

The Gardens at Ball includes over 9 acres of trial and show gardens, highlighting Ball genetics and exclusive product lines for the N. American market and markets worldwide. The two interns will join the Gardens’ staff to

- Assist in the planning, assembly, and implementation of the trial and display gardens
- Gain experience in several aspects of exterior landscape installation

Daily responsibilities will be to assist with planting and maintaining 10s of thousands of plants installed for the summer trialing period. In addition to the daily physical responsibilities, there will be an assigned project given to each intern that will need to be completed throughout the season:

1. Nature’s Source vs Synthetic Full Spectrum Fertilizer Study

   - The objective of this internship project will be to determine the viability of using solely Nature’s Source fertilizer as a replacement to the traditional fertilizer program utilized at The Gardens at Ball for container grown crops over the course of a growing season.
   - This intern will take weekly readings of pH and EC and use those results to make recommendations on fertilization changes that need to take place, as well as collect weekly visual data.
   - Supervisors will work with this intern in choosing the best crops to utilize for this experiment.

2. Vegetable Trials

   - The objective of this internship is to provide special attention to vegetable crops that are showcased throughout the trial gardens during the course of the summer.
   - This intern will be responsible for maintenance from beginning to end of crops such as (but not limited to) tomatoes, peppers, cucurbits and a plethora of herbs.
   - This intern will work with not only the Gardens at Ball supervisors, but product representatives of the vegetables that are being showcased.
   - Other than maintaining and harvesting, this intern will be asked to monitor pH and EC of soil of crops, as well as make weekly visual assessments.

Requirements

Junior or senior level student majoring in horticulture, landscape design and maintenance or related field. This internship requires intermediate-level proficiency with MS Word, Excel, Outlook and PowerPoint. Selected intern must be self-directed, have the ability to organize and prioritize their work, as well as work a flexible schedule during peak planting periods and in advance of special events. Similarly, this hands-on internship requires that the student is able to work under a variety of environmental conditions, including heat, humidity and rain for prolonged periods of time, as well as lift 50+ pounds and perform physical labor. Ability to start employment by May 16 is preferred.
Description

Polyploidy is pervasive in plants and some estimates suggest that 30–80% of living plant species are polyploid. Likewise, within the commercial ornamental plant arena, polyploidy is especially common. Polyploid plants can arise spontaneously in nature by several mechanisms, including meiotic or mitotic failures, and fusion of unreduced (2n) gametes. In addition, and for product development purposes, the induction of polyploidy is a common technique used in the laboratory and greenhouse environments. Polyploids can involve a single species (autopolyploid) or multiple species (allopolyploid). Polyploidy can serve numerous purposes in ornamental plant breeding programs, including overall enhanced plant performance, restoring plant fertility, and aligning ploidy levels of breeding lines with other breeding accessions.

It is anticipated that the intern will be exposed to various techniques of ploidy induction in the laboratory, establishment of polyploid lines in the greenhouse, and the systematic verification of polyploidy in the greenhouse and laboratory. This position will be comprised of laboratory- and greenhouse-based activities, with both sets of activities being recorded in careful detail in a laboratory notebook.

The planned list of activities will include:

- Chemical induction of polyploid plants
- Microscopy-based verification of polyploid plants
- Greenhouse activities, including planting, transplanting, and tissue sampling
- Tissue culture media preparation
- In vitro plant regeneration studies
- Record keeping in a laboratory notebook
- Computer-based activities
- Other miscellaneous tasks

Requirements

Junior or senior level student majoring in horticulture, plant science, plant biology or related field with an emphasis on plant science research. Completed coursework in plant genetics and molecular/cell biology and related lab experience, along with some knowledge of cytogenetics and/or plant breeding is a strong plus. This internship requires intermediate-level proficiency with MS Word, Excel, Outlook and PowerPoint. Selected intern must be self-directed, demonstrate good communication skills, have the ability to organize and prioritize their work, and possess strong analytical skills. Similarly, this hands-on internship requires that the student is able to work under a variety of environmental conditions, including greenhouse and laboratory environments.
**Description**

The student will work in our Premier Seed Research Lab on a variety of projects involving evaluations of seedling development to assist in determining a rationalization of the assortment of seed coating and pelleting options for grower customers. The intern will be directly involved in assisting with inventorying the different types of coated/pelleted seed in the current assortment, conducting sowing trials with high-speed drum seeders and testing for germination performance. The student will also be involved with evaluating organic seed coating and pelleting formulations in trials against non-organic formulations.

Examples of the activities involved in these projects will include setting up growing facilities and grow-out standards for each crop, data collection and interpretation, and evaluation of technologies employed in seed testing. Use of proprietary seed testing methods as well as petri testing will be employed. Participation in the evaluations of various controls such as optimum light spacing, intensity and watering requirements per crop will also be performed.

Some local travel may be required.

**Requirements**

Junior or senior level student majoring in horticulture with an emphasis on young plant production research or greenhouse production is ideal. This internship requires intermediate-level proficiency with MS Word, Excel, Outlook and PowerPoint. Selected intern must be self-directed, have the ability to organize and prioritize their work, as well as work a flexible schedule during peak periods. Similarly, this hands-on internship requires that the student is able to work under a variety of environmental conditions, including heat and humidity for prolonged periods of time, as well as lift 20+ pounds and perform physical labor.
Description

Objective: Improve service and reduce operational costs by improving and standardizing productivity tracking, processes, and training. Work directly with department supervisors and Ball employees to ensure knowledge transfer and local expertise. Establish baseline performance and develop new performance expectations after implementing changes.

Major Responsibilities:

Seed Distribution - Product Flow / Process Improvement
- Enhance workflow to improve productivity/efficiency
- Use Lean principles to remove bottlenecks and assign work
- Improve exception process and isolate to a specific area using specific employees (not checkers)
- Define “scanning light” qualifications and assist with training to build bench strength for seasonal peaks

Seed Distribution – Staffing and Training Plan
- Develop staffing curve and hiring plan by pay period and job function
- Assist with recruitment and hiring plan
- Cross train all employees in all functions
- Customer focus – Work with staff to align behaviors with internal and external customer expectations
- Develop training checklists (documentation) for new and seasonal employees

Seed Distribution – Order Tracking / Productivity Tracking
- Enhance productivity measuring system, determine expectations for each function
- Implement a communication plan for employee feedback

Requirements

Junior or senior level student majoring in horticulture, agriculture, agribusiness or other related field. This position requires a person who has good communication skills and ability to work well in a large group. Must have strong computer skills, specifically a comfort working in Microsoft environment and analyzing data. In addition, individual should be a self-starter, have strong organizational skills and good writing/documentation skills. Previous leadership experience will be helpful.
**Description**

The intern will join the vegetables breeding and product management team and assist in the positioning of vegetable product lines for the small farm market that supplies local consumers, restaurateurs and other fresh produce outlets.

Main Project:
- Develop and refine information to support vegetable and herb container program
  1. Collect and tabulate data on plug culture, finish times vs. plug size, etc.
  2. Document container finish times and performance in 4”, 6”, 8”, 10” containers and others TBD
  3. Create, monitor and document mixed container recipes as advised by Mary O’Connor and Cheni Filios
  4. Travel to garden centers in the area to record types of products being sold, container size, size of plants and investigate how assortments change through the summer
- Provide support for vegetable program activities and tasks including but not limited to:
  1. Support field planting of all projects
  2. Maintain vegetable marketing/futures areas by staking, trellising, pruning, and pest scouting
  3. Collect and tabulate data on days to ripen, Brix, and other data TBD
  4. Support vegetable project through assistance in harvests, and data collection on yields, fruit counts, grading, measurements, etc.

**Requirements**

Junior or senior level student majoring in horticulture, plant science, agriculture, agribusiness or related field. Selected intern must be self-directed, have the ability to organize and prioritize their work, as well as work a flexible schedule during peak periods. Similarly, this hands-on internship requires that the student is able to work under a variety of environmental conditions, including heat and humidity for prolonged periods of time, as well as lift 20+ pounds and perform physical labor. Must have strong computer skills, specifically a comfort working in Microsoft environment and analyzing data. In addition, individual should be a self-starter, have strong organizational skills and good writing/documentation skills.
LANDSCAPE INTERNSHIP
WEST CHICAGO, ILLINOIS
Supervised by: Jeff Gibson

Description

This internship will give the student the opportunity to work in our strategic initiative, Ball Landscape, which serves to connect with the N. American landscape market. At Ball Landscape, we assemble and market perennial, shrub and annual color products to landscapers and supply our grower customers who service the landscape trade with products.

Major Responsibilities:

Ball Landscape Market Segment Surveys, Ball ecological & functional plant database and website

Survey to Landscape architects, Nursery RE-wholesalers, Greenhouse Growers and LS contractors:
- Work with Landscape Business Manager and Market Research Manager to create marketing questionnaire for N.A. Landscape architects; and to greenhouse growers selling to landscapers, nursery re-wholesalers, and landscape contractors
  - on landscape trends, plant types and availability, motivations for use, and supply chain issues
- Determine objectives, measurement goals for survey
- Create questionnaire, determine method of delivery, and analysis
- Administer survey, track, and summarize results
- Analysis and presentation

Develop database and sales strategy for ecological and functional plants for the Ball Horticultural Company

Functional plants: pollinators, rain gardens, forage, drought.
- Identify a group of plants that can be classified for ecological function within Ball Horticultural Company
- Work with Ball Seed sales management and Ball Seed Colorlink Business Development Manager to identify Ball growers likely to purchase functional plants from Ball
- Create questionnaire, work with Ball Seed Customer Relations to conduct calls, and/or survey of identified accounts
- Develop a strategy to promote identified plants to target customers, establish contact method with Ball Seed Customer Relations Manager
- Track and summarize sales target results
- Analysis and presentation

Ball Landscape project management

Ball Landscape Day & Ball Customer Day
- Work with Landscape Business Manager, and Ball Seed sales management to identify key landscape growers, key landscape customers, and target landscape products.
• Communicate with identified Ball landscape growers on logistics/arrangements for the 2-day event.
• Assist with event set-up and implementation, organization of speakers
• Perform internal communications to sales organization and Ball staff
• Develop grower/supplier listing for supplemental invitation mailing
• Coordinate Ball literature and collateral support for event
• Development Post-event survey
• Other events to be involved in may include ILCA field Day at Midwest Groundcovers on August 3

Requirements

Junior or senior level student majoring in horticulture, agriculture, agribusiness or related plant science discipline. Intermediate-level proficiency with MS Word, Excel, Outlook, and PowerPoint. The selected intern must be self-directed, able to work independently, as well as part of a team, and possess exceptional attention to detail. Interest in the landscape sector is a plus.