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 $13.00 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 accessible.

→ A major goal of the program is to expose students to multiple aspects of our business operations; presentations and tours of departments throughout the company are provided during the summer. Similarly, interns are expected to participate in company and industry events including AmericanHort’s Cultivate ’17 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 28, 2017. Intern selections will be determined by March 15, 2017. 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
PANAMERICAN SEED YOUNG PLANT RESEARCH INTERNSHIP
WEST CHICAGO AND ELBURN, ILLINOIS
Supervised by: Sonali Padhye, Sadie Irvine

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 fluctuating temperature in stage 1 germination on useable plug yield of various crops
2. Quantify the effects of salt and PGR treatments on height of vegetable plugs
3. Quantify the length of juvenility stage in various Wave Petunia varieties
4. Quantify the effects of EC on stage 1 Begonia and Pentas plugs
5. Quantify the effects of pinch on Vinca and Marigold finished crops

Experiments may change 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 mobile product catalogs, sales tools, trade and consumer advertising, and website management. The intern will gain exposure via a broad-based marketing internship that focuses on a number of diverse initiatives. Projects are slated to include:

1. Develop a survey that provides Ball Seed feedback on how Ball Seed can serve their customers better.  
   - Identifying the audience we want feedback from  
   - Topics we want feedback on  
   - How we will get that feedback (trade shows or other intercept)  
   - Identifying gaps in what Ball Seed thinks customers want from us versus what they really need from Ball Seed  
   - Understanding the value of the services Ball Seed provides to customers (Which are important and which are not as important)

2. Conduct an analysis of which companies in the horticultural industry are selling online to consumers, how they sell and share insights and implications for Ball Horticultural Company.

3. Outline how we can measure a return on our marketing investment. This includes identifying measurements for marketing tactics such as trade shows, print and digital ads, catalogs, websites and sampling programs.

4. Develop more “how-to” videos for consumer content, as well as quick reference guides for our Garden Help libraries. Identify either DIY projects or instructional planting opportunities and record them, do the post-production, and post/promote them. Focus would be on Wave and Burpee (consumer brands).
   - How to deadhead petunias  
   - Creating a mixed container  
   - Planting veggies on a balcony/patio  
   - The best way to water
   - Dressing up a hanging basket or planter  
   - Vertical gardening, etc.  
   - Craft: personalized garden stakes  
   - Recipe: fresh from the garden veggie use

5. Develop and execute social media plans for Burpee and Wave during the key buying seasons. Focus on visual channels like Pinterest and Instagram.

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 a flair for creative work. 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 by the end of the internship:

1. Problem Solving a Solution to Massive Garden Debris
   - Our property is home to several greenhouses as well as the Gardens at Ball. All growing entities discard their material in the same place on the back of the property. We need a sustainable solution.
   - This intern will be responsible for coming up with solutions to addressing the debris pile.
   - They will consult experts at the company, as well as outside vendors in order to find solutions that are sustainable and realistic for our property.
   - Solutions will be presented at the end of the summer to upper level management.

2. Problem Solving a Solution to Hardscape Design Area of the Plaza
   - The current design of the Gardens is 12 years old, and there is one area in particular that needs to be addressed.
   - This intern will be responsible for coming up with options and solutions that address a particular hardscape area in the Gardens that is showing troublesome for existing trees.
   - They will consult experts at the company, as well as outside vendors in order to find solutions to the issue we are having, while still retaining the design integrity of the area.
   - Solutions will be presented at the end of the summer to upper level management.

Benefit to the Interns:

- Complete an assigned project that will provide the intern with experience in investigating, evaluating and bringing forward feasible solutions for the Company to implement
- Assist in the planning, assembly, and implementation of an industry renown trial and display garden
- Experience in several aspects of exterior landscape installation
- Exposure to all departments associated with the day to day function of the company
- The opportunity to meet, interact, and network with varied groups of industry professionals

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 interns 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 15th is preferred.
BALL SEED SALES AND SERVICE SUPPORT INTERNSHIP

WEST CHICAGO, ILLINOIS

Supervised by: Jacco Kuipers

Description

Ball Seed is the largest division of Ball Horticultural Company. Ball Seed sells and distributes to growers throughout N. America seed, unrooted cuttings and young plants of all types of ornamental plants, especially flowering annuals and perennials. The intern will get exposure to the use of market research and project work to support the sales department, and to projects and functions that help support Ball Seed’s services to customers.

Major Responsibilities:

- Service - Support role within Customer Relations
  - Order entry,
  - Order Notifications,
  - Special projects,
  - Service Program audits

- Sales – Projects to Support Sales Initiatives
  - Market research in geographic areas for prospecting new customers for one or more sales regions
  - Review dormant accounts and cross-reference with other market data to identify customer re-acquisition potential
    - Internet searches
    - Ball Publishing databases, Mast database, other data sources
  - Map out / project potential and help qualify leads
  - Other market research projects as identified to support sales and account initiatives

Requirements

Junior or senior-level student majoring in horticulture, agriculture, agribusiness, ag economics or other related field. This position requires a person who has good communication skills and ability to work well in a large group. This internship is a good match for individuals looking for sales, customer service and management experience. 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.
PERENNIAL YOUNG PLANT PROPAGATION RESEARCH INTERNSHIP
WEST CHICAGO, ILLINOIS
Supervised by: Will Healy, Todd Cavins

Description

Improving Yield and Efficiency in Perennial Young Plant Propagation

The continued growth of perennial crop production has highlighted challenges that growers face to successfully root vegetative perennial cuttings. Growers struggle with optimizing the cultural requirements for rapid, uniform rooting of perennial cuttings. With summer being the primary rooting period, managing and optimizing the environment is even more critical to success. Growers have experienced up to 80% rooting losses due to cutting collapse or delayed rooting. The objective of this internship is to develop protocols, based on current best management practices, to eliminate rooting losses.

The intern will work in our advanced propagation facility to investigate the rooting requirements of key vegetative crops. You will conduct trials to determine the optimum moisture regimes for rooting, chemical rooting agents to enhance rapid and uniform rooting and evaluate photoperiod requirements for root development. Using the Argus environmental control system you will optimize VPD drying curves for rapid hydration of the cuttings.

A recent intern project demonstrated the need for re-hydration of the cuttings prior to sticking to insure uniform, rapid root development, which has revolutionized cutting handling within our rooting station network. We are now interested in expanding our best management practices (BMP) to include the top 20 perennial crops. Also, past internships have demonstrated the benefits of K-IBA rooting hormone application along with Fascination fungicide in enhancing root proliferation. One of the big unknown questions in perennial propagation is the need for photoperiod control. Since most perennials bulk their roots under shorter photoperiods, we are going to investigate the benefits of short days on root development.

Working in our culture & new variety trials greenhouse in West Chicago will allow you to interact with the production staff on a daily basis to expand your experience in greenhouse production. The summer field trials are in production during the internship which gives you the opportunity to learn about the cultural requirements of the newest genetics in the market place. Past interns have expanded their understanding of greenhouse production requirements by working with the greenhouse staff.

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, 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 50+ pounds and perform physical labor.
**Plug Production Research Internship**

**Brighton, CO**

Supervised by: Bill Kluth, Tagawa Greenhouses; Robert Conrad, Will Healy, Ball Horticultural Company

**Description**

Predicting yield of a seed lot is the cornerstone to efficient and profitable plug production. Failure to accurately predict yield results in shortages or excess plant production which affects growers’ costs. The intern will work with Ball Hort Seed Technology and the Tagawa Greenhouses’ teams to validate the newest germination prediction model. The Seed Technology team has developed an innovative sensor array that monitors a diverse set of seedling characteristics that collectively predicts seedling vigor. We need to validate this model with large scale data which this internship will help collect.

The internship will be located at Tagawa’s Brighton, CO facility where large scale plug production occurs. You will monitor sowing of key seed lots, the subsequent germination conditions and automated yield assessment. The data you collect daily will be sent to the West Chicago group for analysis. Monthly, you will travel to the Ball Premier Lab in West Chicago, IL to work with the team for several days on your observations. The primary objective of the project is to collect information to better understand when the predictive models fail to predict the yield and why.

At the West Chicago facility, you will learn about seed germination techniques and processes. Working with the team before going to Tagawa you will learn about the key factors and techniques that affect germination so that you will be able to identify these problem areas when you see them occur at Tagawa.

At Tagawa Greenhouses, you will learn about modern seedling production where precise techniques are used to maximize germination. You will work with the sowing operations at Tagawa to evaluate sowing conditions as they impact seeding uniformity. The variability in the germination conditions will also be observed. The most critical data will be the seed lot performance data from the blow out machines, which remove small plants from the tray. The seasonality of the plug season will parallel the internship period with a slow ramping up of activity in the first weeks as you learn the processes and perfect the data collection work. By July we are starting to hit maximum sowing so the pace and volume will increase dramatically.

Even with your daily phone and email contact with the West Chicago team, your will need to visit to West Chicago to explain to the Team what you see occurring at Tagawa and coordinate special seed testing that is required to evaluate blended seed lots.

**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. This project will require the intern to be well organized and self-directed so that they can effectively monitor and record multiple pieces of data on a daily basis. 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.
SEED DISTRIBUTION INTERNSHIP
WEST CHICAGO, ILLINOIS
Supervised by: Dave Hanebuth

Description

Our Seed Processing Center ships seed to our grower customers and distributor customers around the world. The 50+ employee center receives seed in bulk from PanAmerican Seed and other seed companies, forecasts and packages seed based on anticipated needs of customers and inventories it for just-in-time delivery, a hallmark of our seed business. We continuously innovate processes, systems and equipment to achieve high quality and high productivity goals. The intern will be directly involved in helping the team as we migrate to advanced automated seed counting equipment and systems.

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 Packaging - Product Flow / Process Improvement
- Enhance workflow to improve productivity/efficiency
- Use Lean principles to remove bottlenecks and assign work
- Improve bulk seed process to improve accuracy and eliminate inventory outages

Seed Packaging – Staffing and Training Plan
- Develop staffing curve and hiring plan by pay period and job function
- Assist with recruitment and hiring plan
- Train full-time and seasonal employees on seed counting equipment
- Develop training checklists (documentation) for new and seasonal employees

Seed Packaging – Transition from weigh packaging to count packaging
- Assist with work area design to accommodate new equipment
- Integrate packaging equipment to the network with “saved” machine settings
- Develop a tracking database for packaging equipment
- Establish productivity expectations

Note: Some of the work areas are refrigerated to 40 degrees. Limited time (about 10%) will be spent in these areas. Packing a warm jacket, gloves and hat for the summer is strongly encouraged.

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. This internship is a good match for individuals looking for an impactful management experience that can be applied in any setting in the future. 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.
FRESH MARKET VEGETABLES PRODUCTION INTERNSHIP

ELBURN, ILLINOIS

Supervised by: Cheni Filios

Description

Our breeding program is focused on developing new vegetable varieties for fresh market farmers and home gardeners. We’re looking for a motivated student who wants to participate in vegetable production research. If you’re not afraid to get dirty, have a passion for vegetables and want to gain more experience in vegetable production from sowing, transplanting, pruning to harvest, this is the opportunity for you.

Provide support for vegetable program activities and tasks including but not limited to:

1. Field/high tunnel support for all projects including Tomato, Pepper, Eggplant, Cucurbits, Basil.
   Lead Cucurbit research assistant
   a. Installation – sowing, transplant
   b. Maintenance – staking, trellising, pruning and pest scouting
   c. Collect and tabulate data - days to flower, ripen, Brix, and other data TBD
   d. Harvest and data collection – yields, fruit counts, grading, measurements, etc.

2. Lead vegetable marketing display bed – Elburn
   a. Designing bed layout with input from Product Manager
   b. Installation – sowing, transplant
   c. Maintenance – staking, trellising, pruning and pest scouting

3. Lead marketing container area – Elburn
   a. Collect and tabulate data - days to flower, ripen, and other data TBD
   b. Monitor for ripeness and optimal date of photography
   c. Maintenance – staking, trellising, pruning and pest scouting

4. Lead marketing futures area – Elburn
   a. Installation – transplant
   b. Monitor for ripeness and optimal date of photography
   c. Maintenance – staking, trellising, pruning and pest scouting

This internship can be extended to the end of September for the student who is available for up to 4 months.

Requirements

Junior or senior-level student majoring in horticulture, plant science, agriculture or related field. Experience in vegetable production is a plus, along with experience in data collection and statistical analysis. Comfortable working alone and in a team environment, confident in problem solving and self-organizing time management for multiple projects. This hands-on internship requires that the student is able to work under a variety of outdoor environmental conditions, including heat and humidity for prolonged periods of time, as well as lift 50+ pounds and perform physical labor. Must have strong computer skills, specifically a comfort working in Microsoft environment. In addition, individual should be a self-starter, have strong organizational skills and good writing/documentation skills. Working knowledge of Spanish is beneficial.
HYDROPONIC VEGETABLES PRODUCTION RESEARCH INTERNSHIP

ELBURN, ILLINOIS

Supervised by: Cheni Filios, PanAmerican Seed, and Nick Marasco, The Farm at Triple Threat Mentoring

Description

Are you interested in hydroponics? Are you interested in growing food, educating people and empowering the community? Are you a creative person who enjoys thinking outside of the box? This internship is for a student who will split their time between The Farm at Triple Threat Mentoring (http://triplethreat.org/; http://triplethreat.org/thefarm/) and PanAmerican Seed Vegetable Research to assist with everything to do with growing leafy greens in hydroponics from sowing, transplant, data collection and harvest, to marketing and interacting with the community. Additional time will be spent working on fresh market vegetable production at the PanAmerican Seed vegetable research farm including but not limited to sowing, transplanting, harvest, data collection and data analysis.

Provide support for vegetable program activities and tasks including but not limited to:

1. Hydroponic assistant – The Farm – Triple Threat Mentoring
   a. Research trialing of PanAmerican Seed varieties in a commercial vertical hydroponic system
   b. Assist in hydroponics and aquaponics system maintenance, crop production and harvest, delivery to community outlets and engaging with the local community

2. Hydroponic assistant – PanAmerican Seed
   a. Trial execution - testing mix combinations, determining optimum seeds/pellet
   b. Sowing, transplanting, harvest
   c. Collect and tabulate data

3. Field/high tunnel support for all projects including Tomato, Pepper, Eggplant, Cucurbits, Basil.
   a. Installation – sowing, transplant
   b. Maintenance – staking, trellising, pruning and pest scouting
   c. Collect and tabulate data - days to flower, ripen, Brix, and other data TBD
   d. Harvest and data collection – yields, fruit counts, grading, measurements, etc.

Requirements

Junior or senior-level student majoring in horticulture, plant science, agriculture or related field. Experience in vegetable production is a plus, along with experience in data collection and statistical analysis. Comfortable working alone and in a team environment, confident in problem solving and self-organizing time management for multiple projects. This internship is a good match for someone who enjoys working directly with the local community. This hands-on internship requires that the student be able to work under a variety of indoor/outdoor environmental conditions, including heat and humidity for prolonged periods of time, as well as lift 50+ pounds and perform physical labor. Must have strong computer skills, specifically a comfort working in a Microsoft environment, and good writing/documentation skills. Working knowledge of Spanish is beneficial.
**GROWIT! MARKET RESEARCH AND PRODUCT DEVELOPMENT INTERNSHIP**

*WEST CHICAGO and at 1871 (CHICAGO), ILLINOIS*

Supervised by: Mason Day

**Description**

GrowIt!, a start-up division of Ball Horticultural Company launched in 2014, seeks to use consumer information to help our industry better understand who is buying our products. GrowIt! runs an app by the same name which provides consumers across the country a social community for sharing plant information and experiences within their geographic location.

In 2015 GrowIt! began working with plant breeding companies to sample products to influential consumers on the app. In this internship you will help gather the results from the 2017 GrowIt! sample program. You will work with breeding companies and GrowIt! users to help create a better system while assisting us build a model for an even more robust product in the future.

**Major Responsibilities:**

**Assist in execution of Summer Sample Program**
- Ensure that companies participating in the sample program receive timely feedback
- Track down GrowIt! users for reviews/results based on the plants they received
- Interview users for end of season feedback
- Finalize and deliver insight reports to participating breeding companies

**Help Design a better spring/summer sample program**
- Assist GrowIt’s marketing and community team in creating a better product
- Develop tactics for GrowIt! to better market future introductions
- Analyze the GrowIt! Sample Program for possible conversions to other services for industry companies

**Assist with Designing a Fall Sample program**
- Choose products that work for the fall season and help develop a program that plays on the successes of the spring/summer program

**Audit our Retail program using Chicago retailers**
- Evaluate strengths and weaknesses in the program for users and for the garden centers
- Assist in developing strategies for improving the retail program

**Participate in the design and implementation of a retool of the GrowIt! plant database**
- Evaluate the plant classification system to better meet the needs of users
- Help determine what new plants we must add to the system
- Assess the plant information provided and help determine what users need/don’t need

**Requirements**

Junior or senior level student majoring in horticulture, agriculture, agribusiness or other related field.

This position requires a person who has outstanding communication skills and ability to work well in a group. Must have strong computer skills, specifically a comfort working in Microsoft environment and analyzing data. In addition, individual should be a self-starter, and have good writing/documentation skills. Experience with running social media platforms and a keen interest in social media marketing is a strong plus. Previous leadership experience will be helpful. Time management and organizational skills are a must in this fast paced startup internship.