

# The Blueberry News

Official Newsletter of the Florida Blueberry Growers' Association  
Fall Issue, 2001

**Editor:** Jeff Williamson (Professor, Horticultural Science Department, IFAS, University of Florida)

**Officers:** Jerry Mixon, Jr. (president), Dean Deihl (vice president), Sheri Brothers (secretary and treasurer), Jeff Williamson (educational program director and newsletter editor).

**Board of Directors:** Jerry Mixon, Jr., Dean Deihl, Ken Patterson, Jimmy Miller, Gerald Mixon, Bob Payne, Steve Blount and Paul Lyrene.

**Disclaimer:** The information in this newsletter was selected with good intentions by the editor. It does not necessarily reflect the opinions of the editor, the Florida Blueberry Growers' Association or the Association Directors. The reader should not assume that the information presented in the newsletter is being recommended for his or her farm. Especially where pesticides or growth regulators are mentioned, be sure to follow their labels exactly. If you have comments, corrections, or suggestions regarding the newsletter, please write to the editor.



## Fall Blueberry Short Course

Tuesday, October 23, 2001  
Florida Farm Bureau Building  
5700 SW 34<sup>th</sup> Street  
Gainesville, Fla.

**8:30 a.m. Late Registration** - late registration at the door is \$20 per person and does not guarantee a meal.  
**See enclosed pre-registration form for early registration rate.**

**9:00 a.m. FBGA Annual Business Meeting** - Jerry Mixon , FBGA president, presiding.

**9:15 a.m. Welcome** - TBA

**9:25 a.m. Influence of photoperiod and temperature on flower bud initiation in southern highbush blueberry** - Dr. Rebecca Darnell, horticulturist, Horticultural Sciences Dept., IFAS, University of Florida, Gainesville, Fla.

**9:45 a.m. Thoughts on the nutritional aspects of blueberries** - Dr. Mike Mainland, horticulturist, North Carolina State University, Castle Hayne, NC.

**10:05 a.m. Break**

**10:20 a.m. An overview of blueberries, nationally and internationally** - Mr. Gerald Mixon,

**10:50 a.m. Immigration and other labor issues that impact agriculture** - Mr. Walter Kates, director, Division of Labor Relations, Florida Fruit and Vegetable Growers Association, Orlando, Fla.

**11:20 a.m. Experiences with freeze protection in North Carolina** - Dr. Mike Mainland, horticulturist, North Carolina State University, Castle Hayne, NC.

**11:40 a.m. Update on blueberry cultivars for Florida** - Dr. Paul Lyrene, blueberry breeder, Horticultural Sciences Dept., IFAS, University of Florida, Gainesville, Fla.

**12:00 noon Pesticide labeling issues and use of Dormex** - Dr. Jeff Williamson, horticulturist, Horticultural Sciences Dept., IFAS, University of Florida, Gainesville, Fla.

**12:45 p.m. Lunch at the Horticultural Research Unit, Gainesville (directions provided)**

**Information about the short course -**

**Registration** - Enclosed, please find a ***pre-registration and membership renewal form*** for the Spring Blueberry Short course. **This form must be returned postmarked by October 17 to guarantee your meal and to receive the early registration rate of \$10.00 per person for FBGA members and \$20.00 per person for non-members.** Note that FBGA membership is on a per farm bases. Being a FBGA member allows you and any employee or family member associated with your blueberry operation to attend FBGA meetings at the discounted membership rate of \$10/person.

**Directions to the Farm Bureau Building in Gainesville** - Traveling north on I-75, take the first Gainesville exit on the south side of town (Williston Rd. or Hwy 121 exit). Go about 1,000 feet east toward Gainesville on Hwy 121 and turn south (right) on Hwy 23 (Rocky Point Rd /S.W. 34<sup>th</sup> Street). The Farm Bureau building is less than 1 mile south on the right side of the road. Drive around to the opposite side of the building which is the front of the building and faces I-75. Park there and enter. If you are coming on Hwy 441, turn west on Williston Rd. and go toward I-75. Turn south on 34<sup>th</sup> Street (Rocky Point Rd.) Just before you get to I-75.

## **A MESSAGE FROM THE PRESIDENT**

To say the least it has been an eventful summer. I am sure many of us are still trying to understand and come to grips with what happened on September 11, 2001. As we attempt to carry on with our "normal " routines, may we make our routine "un-normal" by focusing on the really important things in our lives and focus less on those things that in the end are truly temporal.

I trust your fields have had a good summer. If they are like mine, they have relished in the rains that have finally come with some regularity, particularly in the month of September. Of course with the rains comes increased pressure from leaf diseases, so hopefully you have been on top of your spray programs. Remember, as we head into Fall we need to keep our leaves on through at least December 1 to help our bushes attain maximum production. Also, if your fields are like mine you have had your share of battling weeds.

Your Board of Directors met in September and worked to put together a really good Fall meeting. It will be held in October and will offer you topics such as an update on the "World of Blueberries" or what s the rest of the world (particularly those in our market window) doing with regards to planting blueberries. Also, there will be a talk given on happenings in our government with regards to agricultural labor. In addition, cold protection will be reviewed, as will the current cultivar situation in Florida, and a discussion of the nutritional benefits of blueberries will be presented. Jeff will update us on the latest information on chemicals being licensed for use in Florida on blueberries as well as the latest in research being done on blueberries at the University.

Be prepared to take a lot of notes and to enjoy meeting and fellowshiping with other growers. Also, be prepared to discuss your plans for using Dormex for the coming season. We will be attempting to gather enough information (with regards to the quantities needed) so the company can make one drop to the state of Florida. Please see the Spintor form enclosed in this newsletter. If you have purchased or used Spintor this year it is extremely important that you fill out the form and return it to Jeff Williamson.

I look forward to seeing you in October.

*Jerry Mixon, Jr*  
*Mixon Family Farm and FBGA President*

## **Meet Ken Patterson: Featured Blueberry Grower**

A new column has been added to the newsletter that will introduce individual FBGA members and provide information about their farms. I was elected to be first to start us off - so here goes. My name is Ken Patterson, and I am a partner and general manager of Island Grove Ag Products, Inc. We currently employ nine people on a full time bases to maintain our farm and to operate our nursery business in which we specialize in only southern highbush varieties. We currently have 90 acres planted half of which is mature the other is 1 to 2 years old. All of our acres are in overhead sprinklers for irrigation and frost protection. We grow our blueberries in a bark culture and in many configurations. The majority of our plantings consist of Misty, Star, Millennium, Windsor, sprinkled with Santa Fe and Emerald.

During the picking season, we employ approximately 100 people. We pick all of our berries by hand and field grade our fruit before we credit our pickers. Some growers choose to pay by the bucket but I like to pay by the pound. This year we tried a new digital recording scale that stores all information and gives each picker a receipt when they bring up their berries. Although its not cheap, I feel that it paid for itself this year in our situation because it relieved my employees of needless paper work at the end of the day. We force-air cool our fruit within one hour of picking to 45 degrees before shipping them to our broker which is Sunnyside farms. This year we are constructing a new packing facility to handle the increase volume from our new plantings. This is not an easy business but one that I have enjoyed for 16 years. I think that anyone who goes into this business should realize that even though there is money to be made, it is still a risky agriculture endeavor. Good luck.

*Ken Patterson*  
*Past FBGA President and Blueberry Grower*

## Use of Spintor in Florida Blueberries during the 2001 Season, *Jeff Williamson*

**Attention all blueberry growers!** As you are probably aware, Florida received an emergency exemption allowing blueberry growers to use Spintor to control thrips and/or gall midges during the 2001 season. I am required by law to file a report with the Environmental Protection Agency summarizing use of Spintor in Florida during the 2001 season. I have enclosed a form that you must complete and return to me if you purchased, or used Spintor during 2001. Please cooperate fully since noncompliance is in violation of Federal law and will surely jeopardize our ability to obtain similar emergency exemptions in the future. It is extremely important that we maintain a positive working relationship with the EPA and the Florida Department of Agriculture and Consumer Services. Please include your phone number so I may contact you if necessary. Thank you for your cooperation and support for our industry!

## Flower Bud Initiation in Southern Highbush Blueberry, *Tim Spann and Jeff Williamson*

Recently Rebecca Darnell and I co-advised Mr. Tim Spann, a Master's degree student, who conducted research to determine the effects of photoperiod (day length) and temperature on flower bud initiation in southern highbush blueberry. This is an important area of research that has received little, if any, attention for southern highbush blueberry prior to this study. If you attended our meeting last spring, you saw Tim's presentation of his preliminary data. He recently completed his degree and is now enrolled in a PhD program at the University of California, Davis. The information presented below comes directly from Tim Spann's thesis research and is my attempt to condense and reformat his results and conclusions for our newsletter.

Flower bud initiation in blueberry involves the conversion of vegetative buds to flower buds. In Florida, this generally occurs in the fall and is an extremely important process for adequate yields of berries the following spring. Prior to conducting this research we knew the following: 1) Lowbush, rabbiteye, and highbush blueberry are photoperiodic with respect to flower bud initiation. That is, when photoperiods (day lengths) become short enough, some vegetative buds convert to flower buds; 2) However, observations on varying flowering patterns of southern highbush grown in different regions of the world do not lead to a clear consensus about what climatic factor(s) are influencing flower bud initiation and how they might interact with one another. For example, in Florida, we have shown that maintaining healthy foliage on plants well into the fall (when days are short) helps increase flower bud set on several southern highbush cultivars. This could suggest a photoperiod effect similar to that shown for other types of blueberries, or it could mean that continued photosynthetic activity into late fall from leaves which are maintained in a healthy condition is involved.

In the Corindi Plateau of New South Wales, Australia, flower bud initiation of southern highbush occurs year round. This appears to be in conflict with what we know about other types of blueberries and with the behavior of southern highbush in Florida. So what is different in Gainesville and the Corindi Plateau? Day lengths are similar although average high temperatures are about 7 F degrees higher in Gainesville and even more so in central and south Florida. If southern highbush blueberry are indeed photoperiodic, perhaps temperature also influences flower bud initiation and allows for year round flowering in the Corindi Plateau but not in Florida.

Based on this information, Tim conducted a series of experiments to determine if southern highbush blueberry initiated flower buds in response to short days and what effect temperature might have on this process. A brief summary of his experiments follows.

**Experiment 1.** Misty and Sharpblue southern highbush blueberry plants were potted in 5-liter containers and placed in growth chambers where photoperiods and temperatures were carefully controlled. There were three photoperiod treatments: 1) long days (16 h light and 8 h dark); 2) short days (8 h light and 16 h dark); and 3) short days with a night interrupt (8 h light and 16 h dark with a 1 h light interrupt in the middle of the dark period). All plants were maintained at a constant 70 F day/night temperature. The plants were exposed to these treatments for 8 weeks.

**Experiment 2.** Experiment 2 was designed to look at the influence of temperature and duration on photoperiod treatments. It differed from Experiment 1 in the following ways: 1) only Misty was used; 2) two photoperiod treatments were used. They were short days and short days with a night interrupt (both are described in Experiment 1); 3) two constant temperatures were used (70 or 82 F); and 4) plants were exposed to the above treatments for either 4 or 8-week durations.

## Results and Conclusions

Flower buds were initiated under short day conditions but not under long day or short day interrupt conditions. The lack of flower bud development under short day interrupt treatments is definitive evidence that flower bud formation in southern highbush blueberry is a direct result of photoperiod and not an indirect effect of altered photosynthesis. Temperature also appeared to play an important role in flower bud initiation of southern highbush. High temperatures reduced flower bud initiation, even under short day conditions that induced flower bud initiation under lower temperatures. Moreover, flower buds initiated under high versus low temperatures were visibly smaller and failed to develop fully. The duration of exposure to inductive conditions did not influence the number of flower buds formed, but it did affect their development. Flower buds formed after 4 versus 8 inductive weeks bloomed later and more slowly.

Because leaves are the organs that perceive shortening day lengths in the fall, it is extremely important that they remain present and healthy late into the fall season. The fact that temperature also plays a role is important to note. Often times in Florida, the natural day length may be short enough to stimulate flower bud initiation but temperatures may be too high for good flower bud set. This, combined with the fact that the

length of the inductive period is important for complete flower bud development, also emphasizes the importance of keeping healthy leaves on the plant late into the fall. Therefore, summer pruning, fertilization, and a rigorous summer spray program are going to be necessary most years for good flower bud set in Florida. Leaf spot disease control should begin with at least one fungicide spray applied during fruit development and then continued as the summer flush emerges after postharvest pruning. Leaf spot disease control should be preventative in nature. By the time you see leaf spot diseases developing in your fields, it is often too late for adequate control.

### **Farmers Market Seeks Vendors**

The Marion County Farmers Market is looking for farmers who are interested in becoming a vendor. We are looking to expand the market and would like to invite all agriculture producers to be a part of this market. The market is a wonderful opportunity for farmers to sell their agriculture commodities to the public. In order to be a vendor you must grow your own produce. The Farmers Market is Thursday 3:00pm-7:00pm located at the pine plaza on Hwy 441 in Ocala. The farmers market also cordially invites you to be a vendor at this year's Fall Festival October 26<sup>th</sup>. This was very profitable for the farmers last year and I would like to also extend an invitation to other growers. The current Farmers Market Fees are \$20.00 for the year and \$ 10.00 rental space each week. Interested farmers need to contact Nola Wilson at the Marion County Extension Office at 352-620-3440 for more information about becoming a vendor.

### **BLUEBERRY PRODUCTS AND SERVICES**

**Blueberry Hill Nursery.** Come by and see our plants, potted rabbiteye and highbush. We re in Salt Springs. Call (352)685-2769. Lic. No. 47217069.

**Call the Doc!** Doc Applications, Inc. is booking orders for the fall 2000 and beyond. We grow the latest varieties including Gulfcoast, Sharpblue, Sapphire, and Emerald bare root and in containers. Call Dave Weber (863)325-8215 for price and availability. Lic. no. 47219637.

**Elixson Wood Products, Inc.** Pine bark - shredded, nuggets, or fines available. Ph (904) 964-6649.

**Island Grove Ag. Products.** Don't buy plants until you've talked to us. We have all varieties including the new highbush releases from U of F. We will grow specifically for your needs. Contact Sheri Brothers or Ken Patterson at [berrygirl629@aol.com](mailto:berrygirl629@aol.com) or (352)481-5558. Lic. no. 47217870.

**Miller Blueberry Nursery.** Rt. 3, Box 5700, Palatka, FL 32177, Ph.(904) 325-7373. Let us supply your blueberry plants. All varieties. All sizes. Bare root and potted. Please call for prices. Lic. no. 04720531.

**Mixon Family Farm, Inc.** We have excellent quality blueberry plants for sale. We have Misty as well as all the newest releases from the University of Florida including Sapphire, Jewel, Star and Sante Fe. We will custom grow for your specific needs. Call Jerry Mixon (863)439-8335 for price and availability. License no. 472255191

**My Blue Heaven Blueberry Nursery.** Southern highbush varieties. Centrally located in Dade City. Give us a call, we re happy to help. Debra Troyer (352) 567-4256, 18414 Lawrence Rd., Dade City, FL 33523. Lic. no. 47221916.

**Row Mulching Machine** and Loader Equipment. For rent or hire. Bob Waldo, (727) 863-4214.

**Southern Highbush Blueberry plants for-sale** - Several varieties. Call for prices and availability. Bob Waldo, Hudson, FL (727) 863-4214. Lic. no. 47227344.

**Strickland Blueberry Farms and Nursery.** 4956 Slaten Rd., Plant City, FL 33567 Phone (813) 754-3866. FAX: (813)754-8717. Gulfcoast and Sharpblue in 1, 15 and 25 gal. containers. Large quantities available. Come see an alternative planting method. Lic. no. 47220729.

**Florida Industrial Scale Co.** *Serving Central and North Florida Since 1978, Custom Blueberry Harvest Systems. All types of scales and custom systems from laboratory balances to truck and railroad scales. Prompt service, factory trained service technicians. Sales - Rental - Repairs. Offices in Jacksonville, Longwood and Clearwater, (904) 778-0410 (800) 330-7972*

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### **ADVERTISING INFORMATION**

We welcome advertising from blueberry nurseries and suppliers. The cost is 30 cents per word per issue of the newsletter in which your message appears. Send your blueberry-related message and a check payable to **FLORIDA BLUEBERRY GROWERS'**

**ASSOCIATION** to our address given below under membership information.

## **MEMBERSHIP INFORMATION**

To join or renew your membership to the Florida Blueberry Growers Association, mail a check payable to **FLORIDA BLUEBERRY GROWERS ASSOCIATION** to our address: Florida Blueberry Growers Association, P.O. Box 141733, Gainesville, FL 32614.

**The Association annual dues depend on which membership category you fit best.**

1. Regular Florida Member - \$10.00 per acre of blueberries, except a minimum of \$50.00 and a maximum of \$200.00.
2. Out-of-state member - \$50.00.
3. Associate member - \$100.00 (Equipment and chemical companies, etc.).
4. Educational and Research - \$10.00 (University and USDA personnel who do not grow blueberries commercially).

### **Related Links:**

**[University of Florida](#)**  
**[Institute of Food and Agricultural Sciences](#)**  
**[Horticultural Sciences Department](#)**  
**[Florida Cooperative Extension Service](#)**  
**[Jeff Williamson](#)**

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