own breeders have helped introduce several marigolds, such as ‘Whitey,’ ‘Hopeful,’ ‘Cream Puff,’ ‘Silver Dollar,’ and ‘Nearest-to-White.’ This season's best bet will be ‘New Miracle,’ from which the 2½-inch pure white may well develop.

If your planting produces a flower that meets the criterion, guard it carefully on the plant until ripe seed is produced. Then, before Dec. 31, 1973, send about 100 seeds to the Burpee office closest to your home. They will be planted in the Burpee trials for 1974, and you just might be that winner. Someone will be very soon.

HAWAII COUNTY STAFF CHANGES

Norman Bezona
Effective March 19, Norman Bezona joined the CES staff in Hilo as a half-time county agent responsible for programs in vegetable and nursery crops in the Hilo and Puna districts. He also has a half-time faculty appointment at Hilo Community College where he will teach Horticulture.

Norman graduated from the University of Hawaii with a B.S. degree in tropical agriculture. Prior to that he lived in the Pacific Northwest and Okinawa; he was graduated from high school in Portland, Oregon.

He was assistant county agent in Palm Beach County, Florida, until he received his master's degree in 1968, when he returned to Hawaii to work with C. Brewer's citrus, macadamia, diversified crops, and nursery projects as horticulturist.

Yoshio Watanabe
Yoshio Watanabe has been granted a year's leave of absence to take a position with the Economic Development Commission of the County of Hawaii.

Melvin Wong
Melvin Wong has transferred from the Hilo area to a full-time agent's position in Kona.

Tadashi Higaki
Tadashi Higaki, currently on sabbatical leave, studying at Michigan State University, received a fellowship grant of $2800 from the Farm Foundation. He expects to complete his studies by December.

AZALEA GROWTH-RETARDANT TRIAL

For more than 10 years, growth retardants have been known to reduce excessive elongation of shoots and to promote flowerbud initiation on azaleas. Occasionally the effect of the retardant carries over into the forcing schedule by delaying flowering or by reducing the length or number of bypassing shoots.

Hawaii's temperature regime is generally favorable for flowerbud initiation the year round, as azaleas initiate flowers when the night temperatures are 65 F or above. However, the flowering of these buds is erratic because of a lack of cool temperatures (40-45 F for 4 to 6 weeks) required to stimulate uniform flower development and overcome bud dormancy.

Three growth-retarding materials were applied as sprays to field-grown azaleas on August 18, 1971 at the Kula Branch Station on Maui. The object was to try to stimulate more uniform bud set and to observe the effect of the retardants during forcing. Cultivars 'Whitewater' and 'Skylark' had been sheared in June and new growth at the time of treatment was about ½ inches long. These plants were exposed to normal cool nights (45 F) from November until February 3, 1972, when they were lifted, potted, and placed in a greenhouse at 60 F for forcing.

Results
Flowering occurred about 6 weeks later, with little difference in time of flowering among the retardant treatments. Measurements of bypassing shoots gave some interesting and difficult-to-explain results (Table 1). The higher retardant concentrations seem to have had a stimulatory effect on the bypassing shoots, and shoots in nearly all retardant treatments were longer than the control shoots.

Conclusion
No advantage in more uniform budding or reduced bypassing shoot growth was gained in this trial. The natural environment at the Kula Branch
own breeders have helped introduce several marigolds, such as 'Whitey,' 'Hopeful,' 'Cream Puff,' 'Silver Dollar,' and 'Nearest-to-White.' This season's best bet will be 'New Miracle,' from which the 2½-inch pure white may well develop.

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Conclusion
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Station was suitable for bud initiation on azaleas and provided enough natural cool temperatures for controlled uniform forcing.

R. A. Criley, Associate Horticulturist
P. E. Parvin, Horticulturist

Table 1. Average length (inches) of bypassing shoots on growth-retardant-treated azaleas.

<table>
<thead>
<tr>
<th>TREATMENT</th>
<th>WHITEWATER</th>
<th>SKYLARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycocel</td>
<td>4000 ppm</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>2000 ppm</td>
<td>7.6</td>
</tr>
<tr>
<td>B-nine</td>
<td>2500 ppm</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>1500 ppm</td>
<td>9.0</td>
</tr>
<tr>
<td>A-rest</td>
<td>1000 ppm</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>500 ppm</td>
<td>8.5</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>6.0</td>
</tr>
</tbody>
</table>

1Fourteen plants of each cultivar constitute a treatment mean.

NURSERY NOTES

Colored Lilies for Easter

If current trends continue, the traditional white Easter lily may be challenged by colored lilies. This year, several thousand colorful lilies in reds, pinks and oranges will find their way to market from growers in California and Oregon. Plant breeders are working on developing plants which grow shorter for use as a pot plant which can be used during the Easter Season as well as throughout the year.

Florist, March 1973

Name Change Announced

Allan S. Clarke, Cal-Turf Hawaii, Honolulu, recently announced that the name of the company has been changed to A. S. Clarke Corp. and is no longer affiliated with Cal-Turf, Inc., of California.

Nozzles and Discs Wear Out

The holes in spray guns and mist nozzles get larger with use, which increases the discharge and often changes the spray pattern. Brass nozzles may enlarge more than 14 percent in 30 hours of use. Aluminum ones change almost as much, while stainless steel nozzles wear at only half this rate. It is suggested that you check and change your discs and nozzles regularly to avoid waste of pesticides and possible plant injury.

Geiger News, February 1973

Oxalis Control in Greenhouse Roses

Nitrofen was found to be a promising herbicide for the control of yellow oxalis (Oxalis corniculata) in an established 4-year-old planting of ‘Happiness’ roses. The herbicide was sprayed over the top of a solid stand of oxalis growing under the plants established in ground beds in the greenhouse in a mix of redwood shavings and sandy loam soil.

Effective oxalis control of both mature plants and germinating seedlings was achieved for 4 months with 9 pounds active ingredient per acre of Nitrofen. At 3 pounds, partial control was achieved for 44 days; however, regrowth and new seedlings had emerged by 4 months. No visible symptoms of damage to mature or new rose canes were observed.

Registration of Nitrofen is pending for use on several ornamental crops and cannot be recommended on greenhouse roses at this time.

California Agriculture, November 1972

Terrarium Market Booming

Dr. T. J. Sheehan reported, at the National Tropical Foliage short course in Orlando, Florida, that terrarium sales could hit $300 million. He cited the recent trend toward apartment living as the cause of this recent interest and sales of terrariums, dish hardens and hanging baskets.

Dr. Sheehan told the audience that “if you grow quality merchandise, there’s no limit to how far you can go.”

Southern Florist and Nurseryman
February 16, 1973

TO CONTROL BAMBOO

Some bamboo is so aggressive that it becomes a nuisance by spreading where it is not wanted. A large clump looks more formidable than it really is. Its horizontal rootstocks are close to the surface and not too hard to dig out. To eradicate it completely, remove all shoots and rootstocks; otherwise regrowth will occur.

You can also exhaust the food reserves by cutting off all new shoots when they are 2 feet high. This will have to be done several times over a period of a year or more.

For more immediate results, kill the plants with chemicals. To prevent the chemicals from injuring other plants in the area, irrigate thoroughly before application and do not irrigate for as long as possible after application. Instead of cutting the new shoots, spray the bamboo with Dowpon, using 2-2/3 ounces per gallon of water, or with Amitrol3-T, using 5 ounces per gallon of water. Wet the leaves thoroughly and make repeated applications to completely eradicate established plants. These sprays are taken up by the leaves and carried down to kill the roots.

DONALD P. WATSON
Specialist in Horticulture

NEW PUBLICATIONS

Chemical Weed Control in Anthuriums

Hawaii Agricultural Experiment Station Research Report 212, by Tadashi Higaki, presents results of two experiments which show that ex-