

The 1996 results confirmed the 1995 observations. The 500, 1000, and 2000 ppm ethephon treatments significantly reduced seed set and stimulated shoot production and length when compared to treatment with water only. In most cases the 1000 and 2000 ppm ethephon treatments stimulated the production of significantly more shoots per flower cluster than the 500 ppm treatment, but significant differences in shoot length were more difficult to detect. In 'Hoffman's Pink', treatment with ethephon stimulated shoot growth equal to or in excess of that seen in the deadhead controls. However, in 'Tinkerbell' the deadhead control produced significantly longer shoots than the 1000 and 2000 ppm ethephon treatments. Phytotoxic effects indicated by premature leaf yellowing and drop was observed in the 2000 ppm ethephon treatment of 'Snowdrift'. The leaves affected were those just beneath the flower cluster.

The results of 2 years of study on six populations of *K. latifolia* show that application of 1000 ppm ethephon is effective in reducing seed set and stimulating shoot production and growth without phytotoxicity. Further studies will be required to determine if these observations are true for all cultivars and environmental conditions.

#### LITERATURE CITED

Perry, E. and A. Lagarbo. 1994. Ethephon sprays eliminate the messy, hazardous fruits of flowering pear and liquidambar. *California Agriculture*, March-April, pp. 21-24.

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## Elements of a Winning Proposal for an I.P.P.S. — Eastern Region Research Grant

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The International Plant Propagators' Society — Eastern Region offers an annual grant to assist an individual or group to plan, complete, and report on a research project which is intended to advance the art, science, or teaching of plant propagation as they are defined in the Society's constitution and by-laws. The 1997 grant offer is for up to \$5,000. This opportunity is open to practicing propagators, teachers, researchers, and others. Good proposal "grantsmanship" often makes the difference between winners and losers. Adopting the following suggestions in your proposal preparation might help to level the competitive playing field.

- 1) Read and follow all directions carefully. This is the single most important part of the process. Ignoring trivial items such as proposal length, number of copies required, or a submission deadline could disqualify an otherwise winning proposal.
- 2) State the question that your research is aimed at resolving. Do not assume that the evaluators are experts on your particular topic.
- 3) Describe your expected results and the impact that they can have on the plant propagation community. This includes both breadth and depth that your findings may have on commercial, research, and/or educational plant propagation activities.

- 4) Explain how you will perform your proposed research. This action plan should include the “whats” and “hows” of both your research and its analysis.
- 5) Demonstrate that your proposed research is within your capabilities and can be completed in less than 1 year. Professional researchers do not have an advantage over practicing propagators or teachers; all applicants must show that they have enough knowledge, facilities, equipment, and time to do the proposed job properly.
- 6) Tell how you intend to communicate your results to others. It is important to give other propagators, teachers, and/or researchers access to the results of your work. Venues, e.g., the *North American Plant Propagator* or a presentation at an I.P.P.S. conference, are among the many available. The I.P.P.S. motto is “TO SEEK AND TO SHARE.”
- 7) Present a realistic dollar budget for your proposed research. This should name other funding source(s) if needed to complete this project. Using this I.P.P.S. grant to leverage equal or greater funding from other sources is desirable. No I.P.P.S. grant funds should be used to pay for multipurpose capital equipment, overhead, management, supervision or any other indirect costs.
- 8) Present a realistic time schedule for your proposed research. Good schedules have some elasticity to accommodate real-world delays.
- 9) Structure and prepare your proposal to be neat, readable, and logical.
- 10) Allow enough time to prepare a well crafted proposal. It is a harder to write a short, crisp, informative and compelling proposal than a long one loaded with references and unnecessary detail.
- 11) Certify that each of the following requirements will be met:
  - The proposed or substantially similar research has not been done in whole or part by, with, or for the proposers.
  - To the best of the proposers' knowledge and/or belief the proposed or substantially similar research has not been done and/or reported on at any conference or published in any book, scientific, trade, or general readership publication nor do the proposers have reason to expect such publication before completion and publication of the proposed research results.
  - Details of the proposed research and findings will be published in a venue(s) available to all who may be interested. Every such disclosure or publication shall acknowledge that “The International Plant Propagators' Society - Eastern Region has financially supported in whole (or part) this research.”
  - Contemporaneous written technical and expense records of the proposed research will be maintained and preserved for a period of 2 years after first publication of final results of the proposed research. These will be available to the I.P.P.S.
  - None of the proposed I.P.P.S. funding will be used for the acquisition of multipurpose capital equipment or will be used for overhead, supervision, management, or other indirect expenses.

- The name, address, and telephone number of the principal investigator will be provided.

Nothing in this should be considered an offer or commitment by The International Plant Propagators' Society, Inc., any of its regional, area or provisional groups, its employees, members or associates. No assurance as to the accuracy or completeness of this information is made or implied. The information contained herein should be considered general in nature and should not be relied upon without independent verification. Any offer, if made, and its terms and conditions shall be made only by a separate solicitation.

### **ONE SUCCESS STORY - STILL IN THE MAKING**

A few years ago the I.P.P.S. - Eastern Region research grant was awarded to assist a small commercial propagator in developing key parts of an automated cutting preparation and sticking system. That grant provided the credibility and leverage needed to receive an additional \$249,000 in phase 1 and 2 SBIR (Small Business Innovation Research) grants from the USDA. The findings of that research have verified that it is practical to automate the rooted cutting production process. Speed of rooted cutting production will rise while the associated costs and tedious labor decline.

This effort was proposed by someone who saw a need which affected cut flower, pot plant, bedding plant, woody landscape, and forest products producers. The applicant developed a feasible solution concept, did a careful cost analysis, and recruited key technical people. They then wrote a convincing proposal. It applied the best of technology to a broad-based need. In another year or so you may see the fruits of that original grant as commercially available systems which will allow an ordinary assistant propagator to prepare and stick up to 7200 cuttings per hour with a system which pays for itself in a couple of years of normal use.

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## ***Taxus* Response to Differential Concentration and Timing of Pendimethalin Application**

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Suspected herbicide phytotoxicity injury in the nursery industry initiated our interest in this project. Industry reports indicated that phytotoxicity damage had occurred when pendimethalin was used for weed control in the production of *Taxus*. Initial reports stated foliar death occurred where herbicide application had resulted in foliage contact. Reports have indicated plant injury occurred, but not total plant loss. Our interest was to determine if pendimethalin application was the cause of *Taxus* injury and if so, was it due to application at early growth stage or rate or formulation of material applied.

An established field planting of 24- to 30-inch *T. ×media* 'Densiformis' was used for this experiment. Treatment plots measured 12 ft × 7 ft, with three plants per plot. Five treatments were used on three spray dates, for a total of 15 treatments