

**CONTENTS PAGES**  
**VOLUMES 11-20**

**VOLUME 11**

**Eastern Region (11th)**

|  |        |
|--|--------|
| The propagation of pines .....   | 11:16  |
| Some unusual pines .....   | 11:22  |
| The propagation of pines by seed .....   | 11:31  |
| Propagation of loblolly pine by cuttings .....   | 11:33  |
| Pines by grafting .....  | 11:35  |
| Grafting pines out-of-doors .....  | 11:36  |
| Perennial plants from root cuttings .....  | 11:39  |
| Propagating woody plants by root cuttings .....  | 11:42  |
| Characterization of the rooting cofactors extracted from <i>Hedera helix</i> L. and <i>Hibiscus rosa-sinensis</i> L. ....                    | 11:51  |
| Soil sterilization and fumigation .....  | 11:57  |
| The mysteries of pH .....  | 11:67  |
| Hardest and best rhododendrons for commercial propagation .....  | 11:78  |
| Rooting a sport of <i>Cephalotaxus</i> species .....   | 11:83  |
| The propagation of semi-hardwood leafy cuttings using polyethylene bags and sheets with aluminum reflectors .....                            | 11:84  |
| Industry's role in screening new herbicides and rooting hormones .....   | 11:86  |
| Origin of adventitious roots and callus on stem cuttings of <i>Ilex opaca</i> as influenced by wounding and synthetic growth substances..... | 11:93  |
| Pocket planting mixer .....  | 11:95  |
| Comments on the propagation of native azaleas .....  | 11:96  |
| Factors affecting the germination of <i>Koelreuteria</i> seed.....   | 11:98  |
| Observations on some plant distributions in Japan .....  | 11:101 |
| Horticultural paintings .....  | 11:103 |
| Further experiences in rooting <i>Sciadopitys verticillata</i> cuttings .....  | 11:104 |
| Plastic greenhouses for propagation .....  | 11:106 |
| The application of supplemental flashing light to increase the growth of deciduous and evergreen seedlings .....                             | 11:107 |
| Propagation of witches'-brooms .....   | 11:113 |
| <i>Clematis</i> .....  | 11:115 |
| <i>Chaenomeles</i> .....   | 11:119 |
| Propagation of <i>Helleborus</i> .....   | 11:123 |
| Experiences in plant propagation .....   | 11:127 |
| Plastic houses for winter storage and propagation .....  | 11:142 |
| Dwarfing of ornamental plants by grafting .....  | 11:148 |
| Chemical dwarfing of nursery plants .....  | 11:154 |
| Business session (Eastern) .....   | 11:160 |

|   |        |
|---|--------|
| Western Region (2nd)  |        |
| Growth regulators in relation to plant propagation .....  | 11:204 |
| Plant hormones .....  | 11:205 |
| The use of growth regulators in propagating clonal rootstocks for several tree fruit species .....  | 11:208 |
| Growth regulators: the U.C. system and the Oki Nursery. ....  | 11:215 |
| Progress in the production and distribution of registered stocks .....  | 11:219 |
| The commercial nurseryman's view of certification .....   | 11:223 |
| Progress in bringing nomenclature of Western ornamentals into conformity with the International Code of Nomenclature for<br>Cultivated Plants ..... | 11:226 |
| The naming of horticultural plants .....  | 11:229 |
| Current methods in the selection and production of nursery stock .....  | 11:235 |
| Current methods in the selection and production of citrus nursery stock .....   | 11:240 |
| Light and propagation .....   | 11:252 |
| Photoperiod, supplemental light, and rooting of cuttings .....  | 11:261 |
| The uses and limitations of supplementary light in California nurseries .....   | 11:266 |
| Etiolation and the rooting of cuttings .....  | 11:277 |
| The cucumber mosaic disease in <i>Hibbertia volubilis</i> .....   | 11:284 |
| Question box (recorded) .....   | 11:285 |
| Propagation of selected plants .....  | 11:300 |
| Propagation of <i>Juniperus chinensis torulosa</i> .....  | 11:304 |
| Propagation of <i>Juniperus conferta</i> .....  | 11:306 |
| Propagation of <i>Ceanothus griseus horizontalis</i> 'Yankee Point' .....   | 11:309 |
| Propagation of <i>Xylosma</i> .....   | 11:314 |
| Propagation of <i>Convolvulus cneorum</i> .....   | 11:316 |
| Propagation of <i>Ilex aquifolium</i> from cuttings .....   | 11:318 |
| Business session (Western).....   | 11:321 |

## VOLUME 12

### Eastern Region (12th)

|  |       |
|--|-------|
| Business session.....  | 12:19 |
| Plant anatomy as related to the rooting of cuttings.....   | 12:43 |
| Wounding cuttings as a commercial practice.....  | 12:47 |
| The physiology of an evergreen cutting from the time it is taken until it is rooted .....                          | 12:55 |
| Care and management of cuttings from collection through rooting .....  | 12:61 |
| Leaching of metabolites from aboveground plant parts with special reference to cuttings used for propagation ..... | 12:63 |
| Chemicals and soil amendments .....  | 12:78 |
| Root pruning, mudding, fertilization .....   | 12:82 |
| Hardening of plant materials for winter (East).....  | 12:84 |
| Hardening plant materials for winter (Central).....  | 12:86 |

|   |        |
|---|--------|
| Hardening plant materials for the winter with special reference to Midwest conditions ..... | 12:88  |
| Winter protection for late propagated plant material.....                                   | 12:91  |
| Systems and mechanization in a container nursery .....                                      | 12:95  |
| Report on the Western Region meeting.....   | 12:107 |
| Propagation facilities on the continent .....   | 12:108 |
| New cultivars in two American hardy hydrangeas.....   | 12:110 |
| Softwood rooted cuttings of <i>Prunus cistena</i> and <i>Prunus triloba</i> .....           | 12:115 |
| Communication in propagation.....   | 12:116 |
| New misting equipment from England.....   | 12:118 |
| Propagation in the Pacific Coast area .....   | 12:120 |
| A few low <i>Juniperus</i> species and cultivars .....                                      | 12:122 |
| Winter survival of some difficult cuttings .....  | 12:124 |
| A new technique in grafting blue spruce .....   | 12:125 |
| Plastic for greenhouses.....  | 12:126 |
| Question box.....   | 12:131 |
| Anatomical aspects of budding and grafting.....   | 12:132 |
| The modified patch bud.....   | 12:136 |
| Buried-inarch technique for rooting chestnut cuttings.....                                  | 12:139 |
| The collection, storage, and use of dormant budwood .....                                   | 12:142 |
| The collection, storage, and use of dormant scionwood .....                                 | 12:144 |
| After ripening as related to germination and seedling growth .....                          | 12:150 |
| Stimulating germination of seed by chemical and mechanical means.....                       | 12:154 |
| Methods of treating seeds at the Arnold Arboretum.....                                      | 12:157 |
| Unusual oaks.....   | 12:164 |
| Propagation of oaks by seed .....   | 12:166 |
| The vegetative propagation of oaks.....   | 12:168 |
| The propagation of <i>Juniperus chinensis</i> in greenhouse and mist bed.....               | 12:173 |
| North Central regional plantings of woody ornamental and shelter plant introductions.....   | 12:179 |

### **Western Region (3rd)**

|  |        |
|--|--------|
| Business session.....  | 12:202 |
| Practical value of embryo culture in nursery practice .....  | 12:204 |
| Conifer seed - from cone to seed bed .....   | 12:208 |
| Seed culture of California native plants.....  | 12:214 |
| The theory of mist propagation .....   | 12:220 |
| The economics of mist propagation .....  | 12:223 |
| Mist propagation of cuttings from native California plants .....                                   | 12:226 |
| Simultaneous grafting and rooting of citrus under mist part 1 - environment and mother plants..... | 12:229 |
| Simultaneous grafting and rooting of citrus under mist part 2 - propagation.....                   | 12:230 |
| Simultaneous grafting and rooting of citrus under mist part 3 - hothouse operation.....            | 12:231 |

|  |        |
|--|--------|
| The determination of disease-free propagating material.....  | 12:235 |
| Practical techniques for the production of clean propagating materials .....   | 12:238 |
| Sanitation in propagation.....   | 12:242 |
| Clean culture of bedding plants.....   | 12:243 |
| Clean culture of carnation.....  | 12:245 |
| Production of clean cultured foliage plants.....   | 12:246 |
| The grafting of Koster spruce, <i>Cedrus atlantica</i> f. <i>glauca</i> , copper beech, pink and variegated dogwoods ..... | 12:249 |
| The propagation of lilacs ( <i>Syringa</i> ).....  | 12:254 |
| The grafting of <i>Acer palmatum</i> .....   | 12:256 |
| Root constriction of container-grown nursery stock.....  | 12:258 |
| The control of growth phases and its relation to plant propagation.....  | 12:260 |
| A physiological comparison of rooting in easy and difficult-to-root cuttings.....  | 12:265 |
| Control of plant height .....  | 12:269 |

## VOLUME 13

### Eastern Region (13th)

|   |        |
|---|--------|
| Business session.....   | 13:22  |
| The effect of etiolation upon the rooting of cuttings I.....                        | 13:42  |
| Why certain cuttings are hard to root .....   | 13:63  |
| Rooting cofactors in some Southern pines.....                                       | 13:71  |
| Mist propagation of cuttings inserted directly into the rooting-growing medium..... | 13:74  |
| Problems and propagation procedures of a small to medium sized operation.....       | 13:80  |
| Planning a plant inventory for the Twenty First century .....                       | 13:86  |
| New forms of deciduous and evergreen plants .....                                   | 13:89  |
| Organized and uniform testing and evaluation of new cultivars .....                 | 13:93  |
| Storage and care of cuttings, grafts, and established nursery stock.....            | 13:98  |
| Sanitation and propagation methods and materials .....                              | 13:100 |
| Cost control in propagation lowering costs.....                                     | 13:101 |
| How to make two-dollar plants in four months with large cuttings.....               | 13:105 |
| Why budding is superior to grafting and points on which so many fail.....           | 13:109 |
| A few dwarf shrubs .....  | 13:113 |
| Propagation of <i>Eucommia ulmoides</i> .....                                       | 13:116 |
| An unusual witches' broom on <i>Pinus strobus</i> .....                             | 13:117 |
| Securing seed production in <i>Magnolia acuminata</i> and <i>M. cordata</i> .....   | 13:120 |
| Recent hybridizations with American magnolias .....                                 | 13:124 |
| The use of Captan in the rooting of rhododendrons .....                             | 13:132 |
| Lilacs, second year from cuttings.....  | 13:135 |
| Arcillite as a soil amendment in potting mixtures.....                              | 13:136 |
| Grafting to overcome chlorosis in pin oaks .....                                    | 13:138 |

|  |        |
|--|--------|
| Propagation of chestnuts and camellia by nurse seed grafts .....                                   | 13:141 |
| The seasonal response in rooting of evergreen cuttings.....  | 13:144 |
| Question box (recorded) .....  | 13:149 |
| The role of research in plant propagation .....  | 13:153 |
| Diseases initiated in the propagating phase which later cause plant loss.....                      | 13:158 |
| The use of a controlled environment plastic structure for propagation by cuttings or grafts .....  | 13:163 |
| Inexpensive plastic structures for winter protection of plants .....                               | 13:166 |
| Leaf-bud cutting trials 1963.....  | 13:170 |
| Holly propagation and culture.....   | 13:174 |
| Growing whole plants from individual cells - a possible propagation technique for the future ..... | 13:176 |
| Effect of stock-scion combinations on the performance of apples .....                              | 13:182 |

#### **Western Region (4th)**

|   |        |
|---|--------|
| Business session.....   | 13:194 |
| <i>Rosa canina</i> .....  | 13:202 |
| Nursery performance of selected garden rose rootstocks.....   | 13:205 |
| Mist propagation of miniature roses.....  | 13:208 |
| Storage and refrigeration of rose budwood.....  | 13:210 |
| Commercial production of roses in Oregon.....   | 13:211 |
| Question and answer period.....   | 13:215 |
| Low voltage bottom heat .....   | 13:222 |
| New conifer selections .....  | 13:224 |
| Propagation by heated frames.....   | 13:226 |
| Custom propagation of rhododendrons.....  | 13:228 |
| Field-growing rhododendrons without lath.....   | 13:230 |
| Exbury azaleas .....  | 13:231 |
| Fruit tree rootstock propagation - seedling production.....   | 13:238 |
| Double-budding of pear trees.....   | 13:242 |
| The historical background, the development, and the propagation of clonal apple rootstocks in America.....                        | 13:244 |
| Propagation of hardwood pear cuttings .....   | 13:261 |
| Propagation of cherry rootstocks.....   | 13:269 |
| Plant propagation in plastic houses .....   | 13:274 |
| Forestalling dormancy and inducing continuous growth of <i>Azalea molle</i> with supplementary light for winter propagation ..... | 13:276 |
| Growing forcing azaleas in plastic houses .....   | 13:279 |
| Peat-perlite mixtures in container growing.....   | 13:286 |
| Ground bark as a growing medium for container nursery stock.....  | 13:288 |
| Soil mixtures.....  | 13:291 |
| Increasing bloom production in rhododendrons by fertilizing practices.....  | 13:294 |

## Eastern Region (14th)

|  |        |
|--|--------|
| Business session.....  | 14:30  |
| The need for research on the nursery level .....   | 14:54  |
| Pacing development of woody plants .....   | 14:60  |
| Propagation of oriental magnolias by layering.....   | 14:67  |
| Some observations on native and cultivated Ericaceae in New York State .....   | 14:70  |
| The importance of quality, germinative characteristics and source for successful seed propagation and plant production ..... | 14:74  |
| Propagation of American elm from cuttings .....  | 14:86  |
| The use of anti-desiccants in establishing liners .....  | 14:88  |
| Mulch culture or “no-tillage” method of propagation and production.....  | 14:95  |
| Grafting junipers .....  | 14:101 |
| Stock-scion relationships .....  | 14:104 |
| Production and breeding of lilacs .....  | 14:107 |
| Abnormal conifers from native populations in Massachusetts.....  | 14:115 |
| White pine witches'-broom seedlings .....  | 14:116 |
| Growth phases in relation to plant propagation.....  | 14:119 |
| Obtaining effective dilutions of insecticides within propagating stock .....   | 14:123 |
| Collection, propagation and evaluation of woody plant materials for highway improvement in Nebraska.....                     | 14:131 |
| Ruthner tower greenhouses.....   | 14:133 |
| Leaching of nutrients from cuttings under mist .....   | 14:138 |
| A look at some hackberries.....  | 14:143 |
| <i>Crataegus</i> rootstock studies.....  | 14:146 |
| Nursery propagation of Carpathian walnuts .....  | 14:149 |
| The isolation of a damping-off inhibitor from sphagnum moss .....  | 14:153 |
| From the near laboratory propagation conditions to the average commercial situation.....                                     | 14:154 |
| Clonal and sexual differences in the propagation of <i>Taxus</i> .....   | 14:160 |
| The diffusion of root promoting substances from stems of <i>Hedera helix</i> .....   | 14:162 |
| Lilac production at Wedge Nursery .....  | 14:166 |
| Use of Simazine on a limited scale.....  | 14:169 |
| Overwintering and early shipping .....   | 14:173 |
| Over wintering plant materials in poly structures .....  | 14:176 |
| Does cultivation preserve soil moisture.....   | 14:177 |
| Storage of B&B plant materials .....   | 14:183 |
| Viruses - their importance to the plant propagator .....   | 14:185 |
| How critical is timing in taking cuttings.....   | 14:188 |
| Question box (recorded).....   | 14:190 |
| Some points to consider in the breeding and propagation of rhododendrons.....  | 14:199 |
| Chemical weed control in the seedbed .....   | 14:204 |

## Western Region (5th)

|  |        |
|--|--------|
| Business session.....  | 14:213 |
| Texas tips.....  | 14:219 |
| Comparisons: European and American procedures in horticulture .....  | 14:222 |
| The role of research in plant propagation .....  | 14:227 |
| The effect of several anti-transpirant materials on apparent transpiration of selected ornamental plants ..... | 14:227 |
| Complementary, supplementary and synergistic effects in root inducing compounds .....                          | 14:235 |
| Opportunities and obligations of the International Plant Propagators' Society.....                             | 14:240 |
| Teaching of ornamental horticulture on a college level.....  | 14:242 |
| Seed germination of greenhouse crops .....   | 14:246 |
| Foliage plants.....  | 14:249 |
| Some of the current propagation considerations with the poinsettia .....                                       | 14:251 |
| Propagation of hydrangeas .....  | 14:253 |
| Deciduous June bud fruit trees.....  | 14:255 |
| Yearling fruit tree raising in Idaho.....  | 14:259 |
| Propagation of citrus plants .....   | 14:261 |
| Virus inactivation in stone fruits .....   | 14:262 |
| Peach bud-graft union on <i>Prunus besseyi</i> .....   | 14:265 |
| The propagation of deciduous azaleas from cuttings.....  | 14:272 |
| Cutting propagation of <i>Xylosma congestum</i> .....  | 14:276 |
| The rooting of Monterey pine .....   | 14:280 |
| Propagating eucalyptus from cuttings .....   | 14:288 |
| Propagation and growing of ground cover plants at Perry's Plants, Inc .....                                    | 14:290 |
| Bedding plant production .....   | 14:293 |
| Growing bedding plants .....   | 14:294 |
| A selection of plants from the Northwest: New, unusual or worthy of wider use.....                             | 14:295 |
| New plant materials for the West and Southwest.....  | 14:298 |
| New ground covers .....  | 14:299 |
| Grafting evergreens.....   | 14:300 |
| Aerated steam treatment of soil- its principles and application.....   | 14:305 |
| Automatic one-gallon container irrigation.....   | 14:308 |
| Selection of nematode resistant fruit tree rootstocks .....  | 14:313 |
| Germination of dormant peach seeds .....   | 14:313 |
| Root initiation on cuttings .....  | 14:313 |
| Tissue culture.....  | 14:314 |
| Production of virus-free material .....  | 14:314 |
| Maintenance and distribution of virus-disease free propagating materials .....                                 | 14:315 |
| Registration and certification.....  | 14:315 |
| Plant propagation in the year 2000.....  | 14:316 |
| Breeding new fruits and nut crops.....   | 14:324 |

|  |        |
|--|--------|
| Production and propagation of rootstocks .....                         | 14:325 |
| Walnut rootstock .....   | 14:327 |
| Field trip to Oki Nurseries, Inc .....                                 | 14:330 |
| IBM: inventory and accounting .....                                    | 14:330 |
| Propagation procedures used by Oki Nursery Propagation Department..... | 14:332 |
| Soils and sterilization: Mixing, sterilization methods.....            | 14:333 |
| Specialized equipment: Canning material handling systems .....         | 14:334 |
| B-I-F fertilizer metering system.....                                  | 14:335 |
| Mechanized irrigation for nurseries.....                               | 14:336 |
| Production and records.....  | 14:339 |
| IBM data processing and the nursery industry.....                      | 14:343 |

## VOLUME 15

### Eastern Region (15th)

|  |        |
|--|--------|
| Business session.....  | 15:30  |
| Address of welcome .....   | 15:60  |
| A history of mist propagation .....  | 15:63  |
| Mist systems and their controls.....   | 15:67  |
| Mist from a cutting's viewpoint.....   | 15:71  |
| Mist propagation problems .....  | 15:74  |
| The influence of intermittent mist on the mineral nutrient content of cuttings during propagation .....                | 15:78  |
| Propagation of cuttings under nutrient mist.....   | 15:87  |
| Photoperiodic treatment and its influence on rooting and survival of cuttings, "lighting under mist" .....             | 15:94  |
| Rooting-growing media.....   | 15:97  |
| Principles of hardiness and survival as they relate to newly propagated plants .....                                   | 15:113 |
| Pre-emergence weed control in nursery stock.....   | 15:123 |
| Slide tour of California container nurseries .....   | 15:127 |
| Propagation of <i>Rhododendron carolinianum</i> from stem cuttings.....  | 15:134 |
| New misting nozzle with self-contained adjustable timer .....  | 15:138 |
| Success and failure in rooting <i>Tsuga canadensis</i> .....   | 15:139 |
| Rooting of <i>Magnolia grandiflora</i> .....   | 15:142 |
| Weed control using compressed air, a new concept.....  | 15:145 |
| Captan aids rooting of loblolly pine cuttings .....  | 15:147 |
| The effects of media, pH, and root inducing chemicals on rooting of <i>Gardenia jasminoides</i> .....                  | 15:151 |
| Propagation of blueberries under fluorescent light at various intensities.....   | 15:154 |
| Progress report of root promoting activity in juvenile and adult phase of <i>Malus robusta</i> 5 apple rootstock ..... | 15:159 |
| Control of Phomopsis blight in <i>Juniperus virginiana</i> seedlings.....  | 15:164 |
| Endogenous acidic and neutral auxins and the rooting of cuttings.....  | 15:168 |
| Crabapple propagation by cuttings, grafting, and budding .....   | 15:173 |

|   |        |
|---|--------|
| Rooting of broadleaved evergreens, especially hybrid rhododendrons and species .....                                      | 15:177 |
| Rooting cofactors - identification and functions .....  | 15:181 |
| Rooting of cuttings as influenced by the photoperiod of the stock plant .....   | 15:186 |
| Centrifugation promotes rooting of softwood cuttings .....  | 15:191 |
| Propagation of <i>Picea pungens</i> f. <i>glauca</i> cultivars .....  | 15:199 |
| Cell culture and plant propagation .....  | 15:202 |
| Propagation of difficult, unusual, and rare plants.....   | 15:206 |
| Propagation from cuttings of <i>Picea pungens</i> ‘ <i>Glauca Globosa</i> ’.....  | 15:207 |
| Winter rooting of evergreen cuttings in cold frames .....   | 15:208 |
| <i>Corylus</i> and <i>Cornus</i> from cuttings .....  | 15:209 |
| Question box (recorded).....  | 15:212 |
| Concerns and practices in cutting selection - introduction.....   | 15:229 |
| Timing and its relation to cutting selection.....   | 15:230 |
| Position in cutting selection.....  | 15:232 |
| Role of stock plant nutrition on rooting response of cuttings.....  | 15:233 |
| Weather as it concerns the practice of cutting selection .....  | 15:235 |
| Round table discussions: Automation and/or mechanization in propagation new tools, practices and techniques .....         | 15:241 |
| Weed control in potting soils, seed flats, beds, and frames.....  | 15:243 |
| Winter hardiness of newly potted and container material, preparation for and protection in storage.....                   | 15:247 |
| Rooting chemicals, liquid vs. powder, use, etc., and rooting media, natural, artificial, additives, etc.....              | 15:249 |
| Selection, testing and introduction of new plants and test gardens and arboreta as they relate to plant propagation ..... | 15:251 |

### **Western Region (6th)**

|   |        |
|---|--------|
| Business session.....   | 15:254 |
| The physiology of grafting .....  | 15:261 |
| Methods of teaching grafting.....   | 15:273 |
| Materials and equipment used in grafting and budding.....                                   | 15:275 |
| Grafting of selected ornamentals.....   | 15:278 |
| Grafting of walnuts .....   | 15:281 |
| Panel discussion of field trip.....   | 15:284 |
| Panel discussion of papers .....  | 15:290 |
| Plant growth made to measure .....  | 15:297 |
| Carbon dioxide fertilization.....   | 15:300 |
| Chemical pre-emergence weed control in western Washington.....                              | 15:306 |
| Native California plants of commercial value.....   | 15:309 |
| Methods of seed collecting .....  | 15:314 |
| Modern propagation of ferns .....   | 15:317 |
| Panel discussion of Saratoga Horticultural Foundation tour.....                             | 15:322 |
| Light and temperature trials with seedlings and cuttings of <i>Rhododendron molle</i> ..... | 15:327 |
| Propagating apple rootstocks by the method of continuous layering.....                      | 15:334 |

|  |        |
|--|--------|
| Propagation of difficult plants.....                   | 15:338 |
| Propagation of <i>Xylosma congestum</i> .....          | 15:340 |
| Progress report on the rooting of Japanese maples..... | 15:343 |
| “Liars” forum.....                                     | 15:345 |

## VOLUME 16

### Western Region (7th)

|   |        |
|---|--------|
| Business session.....   | 16:38  |
| Avocado tip-grafting.....                                       | 16:50  |
| Rooting citrus and avocado cuttings.....                        | 16:51  |
| Propagation and growing citrus nursery trees in containers..... | 16:54  |
| Chemical fumigation.....  | 16:63  |
| Soil mixes.....   | 16:65  |
| Commercial applications of aerated steam.....                   | 16:70  |
| Controlled-release fertilizers.....                             | 16:75  |
| Principles of in vitro culture.....                             | 16:80  |
| Application of tissue culture to plant propagation.....         | 16:88  |
| Anatomy of a greenhouse.....                                    | 16:93  |
| Anatomy of the plastic house.....                               | 16:95  |
| Propagation and growing under fiberglass and polyethylene.....  | 16:97  |
| Air-supported plastic greenhouses.....                          | 16:98  |
| Developments in air-supported plastic greenhouses.....          | 16:100 |
| Anatomy of the plastic house - the Arkansas Razorback.....      | 16:101 |
| Has modern marketing affected propagation and, if so, how?..... | 16:108 |
| Modern marketing effects on propagation.....                    | 16:111 |
| In-service training.....  | 16:113 |
| Training workers.....   | 16:115 |
| In-service training.....  | 16:117 |
| Mechanization in the rooting of cuttings: 1906 to 1966.....     | 16:123 |
| Mechanization in modern propagation.....                        | 16:126 |
| Mechanization at Monrovia Nursery Company.....                  | 16:128 |
| Challenging techniques in plant propagation.....                | 16:132 |
| Mechanized potting.....   | 16:133 |
| Mechanized potting.....   | 16:136 |
| An experiment in air-rooting.....                               | 16:139 |
| Foliage plants response to increased CO <sub>2</sub> .....      | 16:141 |
| Carbon dioxide levels in propagation units.....                 | 16:143 |

### Eastern Region (16th)

|  |        |
|--|--------|
| Business session.....  | 16:147 |
| Address of welcome.....  | 16:164 |
| Fogging machines vs. intermittent mist.....  | 16:167 |
| Some aspects of woody plant propagation in England.....  | 16:170 |
| The role of bottom heat in the rooting of cuttings.....  | 16:174 |
| Cellotherm “bottom heat”.....  | 16:182 |
| Unusual propagation techniques.....  | 16:183 |
| Cost of production and how to determine it.....  | 16:184 |
| Hard to root woody plants.....   | 16:190 |
| The propagation of birch.....  | 16:193 |
| Propagation of rhododendrons under outdoor mist.....   | 16:202 |
| Propagation of <i>Carya illinoensis</i> (pecan) from cuttings.....   | 16:205 |
| Propagation of dwarf conifers.....   | 16:210 |
| Propagation of the dove tree from seed.....  | 16:213 |
| Trials with three <i>Juniperus</i> understock.....   | 16:215 |
| Weed control for the nursery.....  | 16:217 |
| Herbicides nursery tool, not panacea.....  | 16:227 |
| Background information on overwintering.....   | 16:235 |
| A low-cost overwintering structure.....  | 16:238 |
| The less elaborate polyethylene structure for winter protection.....   | 16:242 |
| Overwintering azaleas in temperature-control led plastic greenhouses.....  | 16:245 |
| Overwintering container stock under plastic.....   | 16:247 |
| Storage of rooted cuttings, unrooted cuttings, scions, and budwood.....  | 16:251 |
| Seedbed treatment prior to seeding.....  | 16:254 |
| Effect of terminal applications of IBA on rooting of woody ornamental plants.....  | 16:257 |
| Various types and strengths of hormones from U.S.A., England, and Holland.....   | 16:260 |
| Physiological and anatomical effects of gibberellic acid on plant cuttings.....  | 16:263 |
| Hormone-fungicide combinations in rooting.....   | 16:267 |
| Growing rhododendrons with the aid of mercury vapor lamps.....   | 16:272 |
| Testing landscape plants for hardiness in Vermont’s climatic zones.....  | 16:274 |
| Aqua-vapor control.....  | 16:278 |
| Effect of dimethylsulfoxide (DMSO) and tobacco smoke extract (TSE) on root initiation.....   | 16:281 |
| The effects of nutrient solution, foliar spray, 3-indolebutyric acid and dimethylsulfoxide (DMSO) on rooting of <i>Hibiscus syriacus</i> ..... | 16:287 |
| New plant introductions.....   | 16:291 |
| Question box (recorded).....   | 16:294 |
| Vegetative propagation as affected by nutrition - a review.....  | 16:302 |
| Nutrient applications during the dormant season.....   | 16:306 |
| A fertilizer injection system.....   | 16:311 |

## Western Region (8th)

|  |        |
|--|--------|
| Business session.....  | 17:41  |
| Types of rootstocks used in fruit tree production .....  | 17:50  |
| Growing apple trees on Mailing rootstocks .....  | 17:55  |
| Virus-free rootstocks .....  | 17:56  |
| Endogenous root-promoting and root-inhibiting factors in pear cuttings in relation to bud activity .....                                 | 17:62  |
| Container production of nursery stock .....  | 17:72  |
| Quality in container-grown nursery stock.....  | 17:75  |
| Soil temperature conditions in container-grown plants .....  | 17:78  |
| Field production of liners for containers.....   | 17:86  |
| Container production of large trees .....  | 17:88  |
| The importance of provenance in forestry .....   | 17:91  |
| Stratification of tree seed .....  | 17:99  |
| Field production of tree seedlings in Washington.....  | 17:106 |
| Hydro-seeding.....   | 17:110 |
| Simultaneous grafting and rooting techniques as applied to rhododendrons .....   | 17:112 |
| Speeding production of hard-to-root conifers .....   | 17:113 |
| Simultaneous grafting and rooting of citrus under mist.....  | 17:114 |
| Rooting of Douglas fir cuttings by a paired-cutting technique.....   | 17:118 |
| Buried-inarching .....   | 17:122 |
| Grafting techniques in forestry.....   | 17:124 |
| Grafting incompatibility in Douglas fir .....  | 17:130 |
| Field production of conifers.....  | 17:138 |
| Container planting in forestry .....   | 17:141 |
| The role of growth regulatory substances in the physiology of Douglas fir [ <i>Pseudotsuga menziesii</i> (Mirb.) Franco] seedlings ..... | 17:146 |
| Five years' results with prestorage chemical defoliation of deciduous nursery stock .....  | 17:157 |
| Rooting rhododendrons in plastic bands.....  | 17:173 |
| The propagation of rhododendrons .....   | 17:175 |
| Selecting rhododendron cuttings .....  | 17:176 |
| Exbury azalea propagation.....   | 17:178 |
| Leaf and apical bud removal as a means of studying the influence of flowering on rooting in rhododendron .....                           | 17:180 |
| Naming and registering plants .....  | 17:183 |
| Facilities necessary for teaching propagation .....  | 17:188 |

## Eastern Region (17th)

|  |        |
|--|--------|
| Business session.....  | 17:197 |
| Address of welcome .....   | 17:217 |
| Seed propagation review .....  | 17:219 |
| Hastening germination of some woody plant seeds with impermeable seed coats..... | 17:223 |

|   |        |
|---|--------|
| Conifers and hardwoods from seeds.....  | 17:230 |
| Seedling propagation of some broadleaf evergreens and deciduous azaleas.....                                      | 17:236 |
| Some effects of gibberellic acid on year-old pecan seedlings.....   | 17:242 |
| Seven years with viburnums from softwoods.....  | 17:249 |
| Propagation of <i>Franklinia alatamaha</i> from softwoods.....  | 17:254 |
| Propagation of Knaphill azaleas from softwoods.....   | 17:255 |
| Viburnums from softwoods.....   | 17:259 |
| <i>Magnolia grandiflora</i> by cuttings.....  | 17:260 |
| Propagation of Chinese hibiscus.....  | 17:263 |
| System of producing budded container-grown rhododendrons from cutting to trailer.....                             | 17:266 |
| Bench grafting black walnuts.....   | 17:270 |
| Outdoor grafting of pecan.....  | 17:272 |
| Spray programs and the propagator.....  | 17:275 |
| Rooting blueberry softwood cuttings.....  | 17:278 |
| Variation in clones of red-osier dogwood.....   | 17:281 |
| Anatomy of adventitious root formation in stem cuttings.....  | 17:289 |
| Grafting outdoors, deciduous and broadleaf.....   | 17:303 |
| Four years of nut grafting chestnut.....  | 17:305 |
| Some new developments for weed control in transplant beds and field liners.....                                   | 17:311 |
| Fluorescent light intensity and propagation under a semicontrolled environment.....                               | 17:316 |
| Entrance of synthetic growth regulator IAA-2- <sup>14</sup> C into cuttings of <i>Ilex crenata</i> 'Convexa'..... | 17:322 |
| Cytokinins, powerful forces to be considered in plant propagation.....  | 17:328 |
| Crossing Eastern cottonwood in the greenhouse.....  | 17:333 |
| Open field propagation.....   | 17:338 |
| Bailey circular mist.....   | 17:341 |
| Winter storage of young nursery stock.....  | 17:344 |
| Over-wintering evergreens under poly in northern climates.....  | 17:351 |
| Cold storage of softwood azalea cuttings.....   | 17:352 |
| Rooting mediums.....  | 17:356 |
| Peat-perlite as a rooting medium.....   | 17:363 |
| Exploring rooting media.....  | 17:365 |
| Ground bark - a container growing medium.....   | 17:366 |
| New plant introductions.....  | 17:371 |
| Question box (recorded).....  | 17:377 |
| Stock-scion relationships.....  | 17:389 |
| Bloom production on selected garden rose rootstocks.....  | 17:397 |
| Morphology of Arizona cypress on Hetz juniper.....  | 17:403 |

## Region of Great Britain and Ireland Region (1st)

|   |        |
|---|--------|
| Business session.....   | 18:47  |
| The formation of the new chapter of the Society in Great Britain and Ireland..... | 18:50  |
| The Gardening Centre at Syon Park.....  | 18:54  |
| Potting and containerising .....  | 18:57  |
| The propagation of herbaceous stock .....   | 18:61  |
| <i>Betula</i> spp. from cuttings.....   | 18:67  |
| French lilacs under mist.....   | 18:68  |
| Birch grafting.....   | 18:69  |
| Propagation of softwood shrub cuttings for Jiffy-potted lining out stock.....     | 18:72  |
| Taking hardwood cuttings .....  | 18:74  |
| Mist propagation - recording of experimental results.....                         | 18:79  |
| Year-round chrysanthemum production .....   | 18:81  |
| Notes on the grafting of <i>Picea pungens</i> 'Kosteriana' .....                  | 18:84  |
| What is being done? Sources of plant propagation information.....                 | 18:88  |
| Cold storage in nursery practice.....   | 18:91  |
| Some ideas on economical plant propagation .....                                  | 18:92  |
| The future of mist and capillaries.....   | 18:94  |
| Composts and containers .....   | 18:95  |
| A look at Boskoop.....  | 18:98  |
| How to keep up-to-date .....  | 18:100 |
| Question box (recorded).....  | 18:106 |

## Western Region (9th)

|  |        |
|--|--------|
| Business session.....  | 18:109 |
| Plant introduction, past, present, and future.....   | 18:117 |
| An approach to rose plant production.....  | 18:128 |
| My experiences in rose hybridizing .....   | 18:130 |
| Some scion-stock interrelations .....  | 18:133 |
| Production of field grown rose plants.....   | 18:136 |
| Development and maintenance of pathogen-free propagating material.....                     | 18:143 |
| Development and maintenance of virus-free propagating material .....                       | 18:146 |
| California's nursery stock registration and certification programs.....                    | 18:149 |
| Practical approach to certification programs.....  | 18:158 |
| Certification program for stone fruits .....   | 18:159 |
| Certification program for citrus .....   | 18:162 |
| Improvement program for roses.....   | 18:164 |
| Influence of calcium saturation of sphagnum peat on the rooting of some woody plants.....  | 18:170 |
| Red root of chrysanthemum cuttings resulting from unfavorable sodium : calcium ratios..... | 18:181 |
| Water quality and mist propagation .....   | 18:183 |

|  |        |
|--|--------|
| Rooting of blue spruce from cuttings .....                   | 18:187 |
| Seedling propagation .....                                   | 18:188 |
| Integrating propagation with sales .....                     | 18:193 |
| What's new in herbicide use in container-grown plants? ..... | 18:199 |
| What's new in systemic insecticides?.....                    | 18:202 |
| Systemic fungicides .....                                    | 18:203 |
| What's new in growth regulators?.....                        | 18:206 |

### **Eastern Region (18th)**

|   |        |
|---|--------|
| Business session.....   | 18:211 |
| Address of welcome .....  | 18:233 |
| Greetings from Canada.....  | 18:236 |
| Disease control during propagation.....   | 18:238 |
| Modern propagation with tissue cultures.....  | 18:241 |
| Control of plant diseases with systemic chemicals.....                                  | 18:244 |
| Test of three granular systemic insecticides on newly rooted rhododendron cuttings..... | 18:248 |
| Juvenility in relation to adventitious bud and root initiation in woody plants.....     | 18:252 |
| Dwarf conifers .....  | 18:255 |
| Dwarf conifers .....  | 18:258 |
| Pine dwarf segregates from witches' -brooms .....                                       | 18:265 |
| Controlled environments for seedling production .....                                   | 18:273 |
| Carbonized mist in plant propagation.....   | 18:281 |
| Chemical control of plant growth.....   | 18:288 |
| Propagation of chrysanthemums under nutrient mist .....                                 | 18:292 |
| Propagation of trees by tube technique.....   | 18:303 |
| Trimmed versus untrimmed cuttings under mist.....                                       | 18:309 |
| The effect of B-Nine and Cycocel on the rooting of cuttings .....                       | 18:312 |
| New plant introductions .....   | 18:318 |
| <i>Cedrus deodora</i> 'Kashmir' and its propagation by cuttings .....                   | 18:319 |
| Question box (recorded).....  | 18:323 |
| Small public gardens and their importance to the plant industry .....                   | 18:334 |
| What is a British propagator .....  | 18:339 |
| Incompatibility survey among horticultural plants.....                                  | 18:343 |

## **VOLUME 19**

### **Western Region (10th)**

|   |       |
|---|-------|
| Business session.....   | 19:48 |
| The influence of auxin, catechol, and methanolic tissue extracts on root initiation in aseptically cultured shoot apices of the juvenile and adult forms of <i>Hedera helix</i> ..... | 19:57 |

|   |        |
|---|--------|
| Etiolation as an aid in propagation .....   | 19:69  |
| Timing in cutting propagation as related to developmental physiology .....  | 19:77  |
| Economics of a controlled high humidity environment for propagation .....   | 19:82  |
| Continuous misting .....  | 19:85  |
| Misting in cold storage .....   | 19:86  |
| Grafting - a review of some old and some new techniques.....  | 19:91  |
| External detection of incompatible Douglas-fir grafts.....  | 19:97  |
| The importance of cleanliness in the propagation house .....  | 19:102 |
| Aseptic multiplication of lily bulblets from bulb scales .....  | 19:105 |
| Some physiological factors involved in propagation by hardwood cuttings.....  | 19:108 |
| Root initiation in hardwood cuttings of peach-almond hybrid clones .....  | 19:114 |
| Experiments in rooting hardwood cuttings of <i>Rhus cotinus</i> 'Royal Purple' - red smoke tree.....                                    | 19:118 |
| Rooting hardwood cuttings of fruit tree rootstocks .....  | 19:119 |
| Plant propagation at a cellular level - a basis for future developments.....  | 19:123 |
| Review of the rooting of pines.....   | 19:132 |
| Seed propagation at the Saratoga Horticultural Foundation.....  | 19:138 |
| Direct seeding into peat pots.....  | 19:141 |
| Seed germination and culture of <i>Acer palmatum</i> .....  | 19:142 |
| Growing <i>Acer palmatum</i> from cuttings .....  | 19:144 |
| The propagation of some native California plants.....   | 19:145 |
| Some long-term residual effects of retardants on <i>Chamaecyparis lawsoniana</i> 'Elwoodii' and <i>Rhododendron</i> 'A.R Whitney' ..... | 19:149 |
| Winter storage of container plants.....   | 19:156 |
| Mechanized glass structures .....   | 19:160 |
| Propagation toward a fast turn-over .....   | 19:162 |

### **Region of Great Britain and Ireland Region (2nd)**

|  |        |
|--|--------|
| Business session.....  | 19:167 |
| Rose rootstocks - performance and propagation from seed .....  | 19:172 |
| Work flow in the production department of the nursery .....    | 19:180 |
| Relationships between structure and adventitious rooting ..... | 19:192 |
| Forget not the essentials .....                                | 19:202 |
| Plastic shelter construction .....                             | 19:204 |
| Rooting daphnes from cuttings .....                            | 19:205 |
| Problems in Norway maple and sycamore maple propagation .....  | 19:206 |
| Propagation of rhododendrons and azaleas at Kinsealy.....      | 19:208 |
| Acers from cuttings .....                                      | 19:211 |
| Problems in raising ornamental stock from seed.....            | 19:213 |
| The responsibilities of the propagator .....                   | 19:216 |
| The propagation of alpines .....                               | 19:218 |
| The propagation of miniature roses by grafting .....           | 19:219 |

|  |        |
|--|--------|
| Bud-grafting magnolias .....   | 19:221 |
| Heated bins for rooting woody cuttings.....  | 19:223 |
| Propagation of plants for containers.....  | 19:227 |
| How hard do we work?.....  | 19:229 |
| Question box (recorded).....   | 19:230 |
| The propagation of conifers by cuttings .....  | 19:232 |
| Lighting - its effect on rooting and establishment of cuttings (a short review)..... | 19:241 |
| My approach to teaching plant propagation.....                                       | 19:247 |
| Visit to the Boskoop Research Station .....  | 19:249 |
| Simple co-ordinated propagation experiments.....                                     | 19:254 |

### **Eastern Region (19th)**

|  |        |
|--|--------|
| Business session.....  | 19:257 |
| Research at the nursery level .....  | 19:275 |
| Comparisons of various individual media for direct rooting of cuttings.....  | 19:279 |
| Production of juvenile shoots from root pieces.....  | 19:284 |
| Outdoor softwood cutting propagation.....  | 19:287 |
| Propagation of softwood cuttings under polyethylene tents.....   | 19:290 |
| A practical system of cold-frame propagation .....   | 19:294 |
| External and internal nutrition and spring growth of woody ornamental plants.....  | 19:300 |
| Influence of fertilizers and growth regulators on flower bud production of field grown rhododendrons .....                     | 19:305 |
| Use of Cycocel in preventing fall low-temperature damage to azaleas .....  | 19:309 |
| Propagation of different <i>Prunus</i> species by hardwood cuttings.....   | 19:314 |
| Increased production of rooted <i>Prunus besseyi</i> Bailey softwood cuttings with preplanting soak in benomyl.....            | 19:320 |
| Mist propagation of black cherry cuttings: Some early results and prospects for use in forestry.....                           | 19:330 |
| Variability in rooting and survival of cuttings from white pine witches' broom seedlings .....                                 | 19:338 |
| <i>Acer griseum</i> and its propagation.....   | 19:346 |
| <i>Hamamelis</i> propagation.....  | 19:349 |
| Greenhouse and nursery cost analysis .....   | 19:353 |
| A propagation schedule for container plants.....   | 19:357 |
| Mechanization at Medford Nursery.....  | 19:360 |
| Water - friend or foe.....   | 19:363 |
| Relationship of rootstock in the apple to maturity and cold hardiness of the scion variety .....                               | 19:364 |
| Hybridizing woody ornamentals .....  | 19:371 |
| New plant introductions .....  | 19:376 |
| 'Griffin' evergreen magnolia .....   | 19:376 |
| New ornamental tree cultivars offered from Illinois to propagators, 1969-70 .....  | 19:377 |
| Question box (recorded).....   | 19:381 |
| Captan in the rooting medium.....  | 19:390 |
| The relationship between rooting cofactors of easy and difficult-to-root cuttings of three clones of <i>Rhododendron</i> ..... | 19:391 |

## VOLUME 20

### Eastern and Western Regions

|  |        |
|--|--------|
| Business session (Eastern 20th) .....  | 20:53  |
| Business session (Western 11th) .....  | 20:75  |
| The International Plant Propagators' Society philosophy .....                                | 20:94  |
| The International Plant Propagators' Society - 1951 to 1970 .....                            | 20:98  |
| The National Association of Propagating Nurserymen .....                                     | 20:116 |
| Role of environment in plant propagation - water relations .....                             | 20:123 |
| Light - duration, quality, intensity .....   | 20:139 |
| Temperature and plant propagation .....  | 20:153 |
| The role of nutrition in plant propagation .....   | 20:164 |
| Critique .....   | 20:168 |
| Importance of seed source to propagation .....   | 20:171 |
| Dormancy and pretreatment .....  | 20:179 |
| The large scale raising of nursery plants by seed production in England .....                | 20:188 |
| Seedling production in the field .....   | 20:192 |
| Seedling production in structures .....  | 20:195 |
| Two cultivars for upgrading <i>Magnolia virginiana</i> seedling production .....             | 20:199 |
| Critique .....   | 20:202 |
| Growth regulation: Then, now and hence .....   | 20:211 |
| Environmental control in rooting leafy cuttings .....  | 20:218 |
| Fruit tree raising in England today .....  | 20:222 |
| Selection and time of collection of material for stocks and scions .....                     | 20:225 |
| Environmental control for grafting .....   | 20:232 |
| Hardwood cuttage practices in Great Britain - a review .....                                 | 20:238 |
| Can grafting be mechanized? .....  | 20:244 |
| Plants for the future .....  | 20:249 |
| Plant exploration .....  | 20:251 |
| Evaluation of new plants .....   | 20:258 |
| The future in ornamental plant breeding .....  | 20:264 |
| New plant introductions and their importance .....   | 20:270 |
| <i>Malus</i> 'Donald Wyman' .....  | 20:271 |
| New plants from Manitoba .....   | 20:272 |
| Question box (recorded) .....  | 20:278 |
| The effect of dipping depth and duration of auxin treatment on the rooting of cuttings ..... | 20:292 |
| Plant propagation and system analysis .....  | 20:301 |
| Plant propagation and ecology .....  | 20:309 |
| Closing remarks .....  | 20:314 |

### **Region of Great Britain and Ireland Region (3rd)**

|  |        |
|--|--------|
| Business session.....  | 20:317 |
| The venue of the 3rd Annual Conference The School of Agriculture, University of Nottingham ..... | 20:324 |
| The President and his knife.....   | 20:325 |
| Nursery stock production in Denmark.....   | 20:328 |
| <i>Clematis armandii</i> grafting.....   | 20:330 |
| Propagation by root cuttings .....   | 20:332 |
| Trials on propagation of <i>Chamaecyparis</i> at Kinsealy.....                                   | 20:334 |
| Selection of material when propagating Leyland cypress.....                                      | 20:338 |
| Research and the practical propagator.....   | 20:340 |
| Aspects of propagation in forestry .....   | 20:342 |
| Recent developments in cold storage at Tilhill .....   | 20:351 |
| General information on cold storage of nursery plants in jacket-cooled stores.....               | 20:352 |
| Vegetative propagation of tea .....  | 20:355 |
| The vegetative propagation of <i>Corylus</i> .....   | 20:356 |
| Plant propagation using in-vitro culture techniques .....  | 20:359 |
| Practical experiences with polythene structures.....   | 20:364 |
| Overwintering of deciduous azalea cuttings .....   | 20:366 |
| Question box (recorded).....   | 20:368 |
| The conference visits (1) James Coles and Sons, Thunby, Leics., England.....                     | 20:373 |
| The conference visits (2) Harry Wheatcroft and Sons, Edwalton, Notts, England.....               | 20:375 |
| Notes on the propagation of viburnums.....   | 20:378 |