

RULES COMMITTEE

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Proposals for Rules Changes

These proposals will be discussed and voted on at the AOSA meeting in Little Rock. Please study each proposal carefully and send your comments to the committee chairman.

1. Section 8. (Page 96) Preinoculated Legume Seed Testing. New section:

Methods for conducting seedling tests to determine the effectiveness of inoculation on preinoculated legume seed are outlined in AOSA Handbook No. 30 "Growth Performance Tests for Preinoculated Seed".

Justification: The association adopted tentative "Rules for Testing Preinoculated Seed" in 1962. Since that time testing methods have been evaluated through a referee sent out by A. S. Carter and a Handbook has been published.

2. Section 4.12, Table 5. Methods of testing for laboratory germination and hard seeds, Tree and Shrub seeds. (page 69)

<u>Kind of Seed</u>	<u>Substrata</u>	<u>Temp. °C.</u>	<u>Test Duration (days)</u>	<u>Additional Directions</u>
<u>Aesculus pavia</u> red buckeye	TC	20-30	28	--
<u>Carya illinoensis</u> pecan	TC	20-30	28	Prechill 60 days at 3-5°C.
<u>Carya ovata</u> shagbark hickory	TC	20-30	28	Prechill 60 days at 3-5°C.
<u>Casuarina spp.</u> beefwood	C, TB	20-30	14	Light
<u>Cornus amomum</u> silky dogwood	C, TB	20-30	14	Prechill 90 days at 3-5°C.
	P	18-22	10	Embryo excision
<u>Cornus florida</u> flowering dogwood	C, TB	20-30	28	Prechill 120 days at 3-5°C.
	P	18-22	10	Embryo excision
<u>Cornus stolonifera</u> red-osier dogwood	C, TB	20-30	21	Prechill 90 days at 3-5°C.
	P	18-22	10	Embryo excision

<u>Crataegus mollis</u> downy hawthorn	C, TB	20-30	14	2 hrs. H ₂ SO ₄ , followed by 90 days prechill at 20°C., then 120 days at 3-5°C - TZ may also be used.
<u>Eucalyptus deglupta</u>	C, TB	20-30	14	--
<u>Eucalyptus grandis</u>	C, TB	25	14	Light
<u>Grevillea robusta</u> silk-oak	C, TB	20-30	21	Light
<u>Libocedrus decurrens</u> incense-cedar	C, TB	20-30	28	Prechill 30 days at 3-5°C.
<u>Liriodendron tulipifera</u> yellow-poplar	C, TB	20-30	28	Prechill 30 days at 3-5°C.; or use TZ or embryo excision
<u>Magnolia grandiflora</u> southern magnolia	C, TB	20-30	42	Prechill 45 days at 3-5°C.; or use TZ
<u>Nyssa aquatica</u> water tupelo	TC	20-30	21	Prechill 30 days at 3-5°C.
<u>Nyssa sylvatica</u> var. sylvatica black tupelo	C, TB	20-30	28	Prechill 21 days; very few lots dormant
<u>Pinus caribaea</u> Caribbean pine	C, TB	20-30	21	--
<u>Pinus clausa</u> sand pine	TB	22	21	Sensitive to excess moisture
<u>Pinus serotina</u> pond pine	TB	22	21	--
<u>Platanus ceei</u> dentalis American sycamore	TB	20-30	14	--
<u>Populus</u> spp. poplars	TB	20-30	14	Light
<u>Quercus</u> spp. (red or black oak group)	TC, TB	20-30	14	Cut 1/3 off cup scar end of acorn and remove pericarp
<u>Quercus alba</u> white oak	TC	20-30	28	--

<u>Quercus muehlenbergii</u> chinkapin oak	TC	20-30	28	--
<u>Quercus virginiana</u> live oak	TC	20-30	28	--
<u>Rhododendron</u> spp. rhododendron	C,TB	20-30 (25)	21	Light
<u>Vitis vulpina</u> riverbank grape	C,TB	20-30	28	Prechill 90 days at 3-5°C.; or use TZ

1/ All substrata symbols are the same as in the current rules, except TC = on on top of creped cellulose paper without a blotter.

Change of wording: Table 5 - Additional directions - Present wording prescribes either "16 hours of light" or more than 8 hours for Pinus echinata, P. elliotii, P. palustris and P. virginiana.

Proposed wording: 8 hours of light is sufficient when light is used in germination of Pinus echinata, P. elliotii, P. palustris and P. virginiana.

Justification: Current AOSA Rules give germination test methods for over 100 species, but many important ones are not included. The Tree and Shrub Seed Subcommittee for the past two years has evaluated germination methods for these 29 species or genera. All methods have been successfully used by subcommittee members in their laboratories.

3. Section 4.9 (page 31) Explanation of Tables 3, 4, and 5.

Addition:

- a. Substrata - addition to paragraph two. Symbols for substrata in column 2, Table 5, are the same as for Tables 3 and 4 except that (a) "P" includes (in addition to the above indicated materials) sponge rock, vermiculite, terralite, or a mixture of 50% sand and vermiculite, sand and perlite, etc. (b) "TC" = on top of creped cellulose paper without a blotter.

4. Section 4.11, Table 4. Methods of testing for laboratory germination and hard seed, Flower Seeds. (page 55)

Kind of Seed	Sub- strata	Temper- ature °C	First count ^a days	Final count ^b days	Additional Directions
<u>Anthemis tinctoria</u> , (kelwayi) (Golden camomile)	P	15	-	14	Light; new crop seed may be sensitive to temperature above 15°C
<u>Anthemis sancti-johannis</u> (St. Johns camomile)	P	15	-	14	Light; new crop seed may be sensitive to temperature above 15°C.
<u>Aquilegia alpina</u> (Alpine columbine)	P	20-30	6	16	Light; prechill 14-21 days at 3-5°C with KNO ₃ prior to testing
<u>Asclepias tuberosa</u> (Butterfly milkweed)	P	10-30	6	14	Light; prechill 21 days at 3-5°C prior to testing.
<u>Baileya pleniradiata</u> (Desert baileya, woolly marigold)	P	20-30	-	14	Light; seed treatment may be necessary with <u>Rhizoctonia</u> infection
Cacti-mixtures	P	20-30	7	18	Light; good moisture supply terminate some tests earlier
<u>Cardiospermum halicacebum</u> (Balloonvile, heartseed)	B	20-30	10	28°	Clipping seed coat will eliminate hard seed
<u>Cereus giganteus</u> (Saguaro cactus)	P	20-30	-	10	Light; good supply moisture
<u>Dictamus albus</u> (Gasplant dittany)	P	20-30	10	21	Light; prechill 45 days at 3-5°C prior to testing
<u>Echinops ritro</u> (Small globethistle)	TB	20-30	8	21	Light; good supply moisture
<u>Episcia spp.</u> (Flame-violets)	P	20	-	21	Continuous light
<u>Erigeron speciosus</u> (Oregon fleabane)	P	15	6	16	Light

Kind of Seed	Sub- strata	Temper- ature °C	First _a count days	Final _b count days	Additional Directions
<u>Euphorbia heterophylla</u> (Painted euphorbia)	TB	20-30	6	16	Light
<u>Ferocactus wislizeni</u> (Barrell cactus)	P	20-30	-	10	Light; good supply moisture
<u>Fushsia spp.</u> (Fuchsia)	P	15	16	28	Light; 8 hours or more
<u>Inula grandiflora</u> (Sunflower inula)	P	20-30	6	14	Light
<u>Kalanchoe blossfeldiana</u> (Kalanchoe)	P	20	-	16	Continuous light
<u>Lavatera trimestris</u> (Herb treemallow)	B	20	7	21°	Hard seed present
<u>Lychnis viscaria</u> (Clammy campion)	P	20-30	-	14	Light
<u>Martynia proboscidea</u> (Martynia, Devils claws) Unicorn plant	P	20	-	10 ^d	Light, excise embryos and place in closed dish
<u>Mentha piperita</u> (Peppermint)	P	20-30	7	16	Light
<u>Mesembryanthemum criniflorum</u> (Ice plant livingstone daisy)	P	15	6	16	New crop seed may require 10°C and KNO ₃
<u>Mimulus tigrinus</u> (Tiger monkeyflower)	P	15	-	14	Light
<u>Pyrethrum ptarmicaeflorum</u> (Canary Islands chrysanthemum)	P	15	-	12	Light; treatment may be necessary with fungus infection
<u>Saintpaulia spp.</u> (African violet)	P	20	18	28	Continuous light
<u>Sedum acre</u> (Goldmoss sedum)	P	15	-	14	Light; 8 hours or more
<u>Sempervivum spp.</u> (Hens and chickens)	P	20	-	14	Light; 8 hours or more

Kind of Seed	Sub- strata	Temper- ature °C	First count ^a days	Final ^b count days	Additional Directions
<u>Thymus serpyllum</u> (Mother-of-thyme)	P	15	-	14	Light
<u>Veronica latifolia</u> (Hungarian speedwell)	P	20-30	6	16	Light
<u>Veronica spicata</u> (Spike speedwell)	P	20-30	6	16	Light

Justification:

These proposals were developed through continued research similar to that which developed the recommendations adopted in 1967 and 1970. Research supporting these procedures has been published in the AOSA Proceedings, AOSA Newsletter or the Proceedings of the International Seed Testing Association.

The committee is studying other proposals and if they recommend that these proposals be voted on by the Association, a special mailing will be made to inform the association.