

PART II. TETRAZOLIUM TESTING PROCEDURES

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Alphabetized Plant Families

(see next page for the plant families included in this handbook)

APPENDIX

GLOSSARY

INDEX - A [Family/Genus]

INDEX - B [Genus/Family]

LABORATORY REFERENCES

BIBLIOGRAPHY

Plant Families Included in Handbook

A

ACANTHACEAE
ACERACEAE
AGAVACEAE
AIZOACEAE
AMARANTHACEAE
ANACARDIACEAE
APIACEAE
APOCYNACEAE
ASCLEPIADACEAE
ASTERACEAE

B

BALSAMINACEAE
BEGONIACEAE
BERBERIDACEAE
BETULACEAE
BIGNONIACEAE
BORAGINACEAE
BRASSICACEAE I
BRASSICACEAE II

C

CACTACEAE
CAMPANULACEAE
CAPPARACEAE
CAPRIFOLIACEAE
CARYOPHYLLACEAE
CASUARINACEAE
CELASTRACEAE
CHENOPODIACEAE
CISTACEAE
COMMELINACEAE
CONVOLVULACEAE
CORNACEAE
CRASSULACEAE
CUCURBITACEAE
CUPRESSACEAE
CYPERACEAE

D

DIPSACACEAE

E

EBENACEAE
ELAEAGNACEAE
EPHEDRACEAE
ERICACEAE
EUPHORBIACEAE

F

FABACEAE I
FABACEAE II
FABACEAE III
FAGACEAE

G

GENTIANACEAE
GERANIACEAE
GESNERIACEAE
GINKGOACEAE
GROSSULARIACEAE

H

HAMAMELIDACEAE
HIPPOCASTANACEAE
HYDROPHYLLACEAE

I

IRIDACEAE

J

JUGLANDACEAE
JUNCACEAE

K

L

LAMIACEAE
LILIACEAE I
LILIACEAE II
LIMNANTHACEAE
LINACEAE

M

MAGNOLIACEAE
MALVACEAE I
MALVACEAE II
MYRTACEAE

N

NYCTAGINACEAE
NYSSACEAE

O

OLEACEAE
ONAGRACEAE

P

PAPAVERACEAE
PASSIFLORACEAE
PEDALIACEAE
PINACEAE
PLANTAGINACEAE
PLATANACEAE
PLUMBAGINACEAE
POACEAE I
POACEAE II
POACEAE III
POACEAE IV
POLEMONIACEAE

POLYGONACEAE
PORTULACACEAE
PRIMULACEAE
PROTEACEAE

Q

R

RANUNCULACEAE
RESEDACEAE
RHAMNACEAE
ROSACEAE I
ROSACEAE II
ROSACEAE III
RUTACEAE

S

SALICACEAE
SAPINDACEAE
SCROPHULARIACEAE
SIMAROUBACEAE
SIMMONDSIACEAE
SOLANACEAE

T

TAXACEAE
TAXODIACEAE
TILIACEAE
TROPAEOLACEAE

U

ULMACEAE

V

VALERIANACEAE
VERBENACEAE
VIOLACEAE
VITACEAE

W - X - Y

Z

ZYGOPHYLLACEAE

Acknowledgements

The preparation of this handbook began in earnest in the early 1990's by the AOSA Tetrazolium Subcommittee members who compiled the information.

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The following pages of tetrazolium testing principles and procedures (by plant family) represent the combined work and collaborative effort of many seed analysts of the *Association of Official Seed Analysts* and the *Society of Commercial Seed Technologists*. I extend a sincere debt of gratitude to all those individuals, seed laboratories, and seed companies who contributed to this effort.

Thank you.

Jack Peters, Editor

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Direct your questions or comments about the contents of this handbook to the AOSA Tetrazolium Subcommittee (members listed on the AOSA website) or the appropriate laboratory references listed for each family. Newly revised pages and procedures for submitting changes and additions are also available at www.aosaseed.com

PREFACE

This handbook has been the result of several years of collaboration by many seed analysts in the *Society of Commercial Seed Technologists* and the *Association of Official Seed Analysts*. Many are listed in the acknowledgements. While it has taken many years to develop this edition, the handbook is by no means complete. Additional procedures for plant families not listed in this handbook may be added in future editions.

The intent of the handbook is to offer guidelines and methodologies in tetrazolium testing. The ultimate goal is to provide uniformity in tetrazolium seed testing, with regard to procedures and TZ staining evaluation. Illustrations in the handbook are used to describe seed/embryo morphology, preparation/cutting techniques, and TZ staining patterns. A bibliography at the end of the handbook lists references associated with tetrazolium seed testing.

The handbook's notebook format is intended to encourage further refinement and experimentation with the TZ methods and techniques. Ample space for notes allows analysts to personalize the instructions. Part II is unpaginated to allow easy updates and additions of plant family procedures. It is the committee's hope that analysts will continue to share experiences and improve the handbook by submitting suggested changes to the committee. Periodic additions and changes are the best way to ensure that the handbook will continue to meet the needs of analysts.

Furrows be glad, though earth is bare —
one more seed is planted there.
Give up your strength the seed to nourish —
that in course the flower may flourish.

Besaçon Carol