April 22, 2015

Dear Class of 2018:

Here are some detail regarding the Toxic Plant Book for Toxicology.

Dr. Kerr will be here Friday April 24 at 8:30 to review instruction and provide the due date (which is usually due about Monday, Oct. 12, 2015).

This assignment is related to your VM836 Toxicology course. Dr. Kerr is your instructor. Part of the class assignment is creating a toxic plant book from pressed plants that you collect. Because summer is often a peak growth season where plants are in bloom and easiest to identify at this stage, you are best off to begin your collection now. This is a fun assignment that gets you outdoors and crafty all at the same time. Those needing buttercups need only to look in my overgrazed front pasture – they are in full bloom!

Below are instructions on making your books, drying flowers and library resources for identifying plants.

**Toxic Plant Book**

During the summer and early fall, many toxic plants are available. During this time, collect at least 20 of the following plants and retain them in a scrapbook or picture album (after they dry). Most, but not all of the plants in the list are native to this area. Make a sketch of each plant on an adjacent page and point out distinguishing features. Include a brief synopsis of each plant including the following:

1. Description of plant
2. Toxic principle (if known)
3. Animals affected
4. When toxic (spring, summer, fall, winter) and parts of plant which are toxic
5. Clinical signs in poisoned animals
6. Necropsy lesions (if any)
7. Treatment and specific preventive measures (if any exist)

For many plants, the treatment will be supportive. Don’t just write “supportive”, but detail what supportive treatment would help such as IV glucose, Banamine, B-complex vitamins, etc. Don’t get the material for the synopsis from only one source as it may be inaccurate. Rather, read from various sources on each plant and put together a summary based on your findings.

*Do not add plants that are not on the following list as the list includes all major toxic plants in this area and a few others we want you to know. Adding additional plants tends to lead to confusion. The plant books will be worth 100 points. Grades will be based on completeness, detail, neatness, and accuracy. Late books will have 10 points per day subtracted from the grade.

Additional credit may be awarded for additional plants, up to a maximum of 5 plants. One point per plant for a maximum of 5 additional points is possible. Students may include additional plants in the notebook for their own interests, but the first 20 to 25 plants will be graded.

The book should have a table of contents and a list of references used.

Each student is expected to find their own plants, perform their own work and create their own books.

**Suggested References:**


3. Kingsbury, J., “Poisonous Plants of the United States and Canada.”


5. Class notes


8. “Weeds of the Southern United States,” Agriculture Extension Service, University of Tennessee

9. Numerous on-line resources

**Toxic Plant List**

Pteridium aquilinum.......................... bracken fern  
Festuca arundinacea.......................... tall fescue  
Sorghum spp.................................. sorghum, Johnson grass, etc.  
Quercus spp.................................... oaks  
Amaranthus retroflexus...................... pigweed  

Phytolacca Americana..................... pokeweed
Prunus spp.......................... cherry and peach
Cassia spp.......................... senna
Crotalaria spp........................ crotalaria
Melilotus spp........................ sweet clover

Sesbania spp........................ sesbania
Aesculus spp........................ buckeye
Cicuta spp.......................... water hemlock
Conium maculatum.................. poison hemlock
Kalmia spp.......................... kalmia, laurel

Asclepias spp........................ milkweed
Datura stramonium.................. jimsonweed
Solanum spp........................ nightshade
Taxus spp.......................... Japanese yew
Eupatorium rugosum.................. white snakeroot

Claviceps paspali.................... ergot on dallis grass
Helenium spp........................ sneezeweed
House Plants......................... house plants (maximum = 3)
Xanthium spp........................ cocklebur
Hypericum perforatum............... St. John’s Wort

Gossypium spp....................... cotton
Perilla frutescens................... perilla mint
Brassica spp........................ rape, kale, turnip
Ranunculus spp...................... buttercup
Vicia Villosa........................ vetch

Nerium oleander..................... oleander
Calycanthus floridus............... sweetshrub
Gelsemium sempervirens........... yellow jessamine
Liqustrum............................. privet
Senna (Cassia) spp............... sicklepod, coffeeweed
Rhododendron spp.............................. rhododendron, azalea, etc.
Juglans spp..................................... black walnut
Oxytropis/Astragalus spp...................... locoweeds
Acer rubrum................................. red maple
Ricinus communis............................... castor bean
Euphorbia spp..................................... numerous
Equisetum spp................................. scouring rush
Lupinus spp..................................... lupines
Delphinium spp............................... larkspur
Digitalis purpurea............................. foxglove
Senecio spp..................................... tansy ragwort
Lantana camara............................... lantana
Veratrum spp................................. skunk cabbage, false hellebore
Hedera helix..................................... English ivy
Rumex spp..................................... dock

If you have never preserved plants, here is how I go about it. Use newspaper and books. Place a plant, leaves, flowers etc. between several sheets of newspaper. Place a heavy book on top. Place another plant in newspaper and put it on top of the book. Put another heavy book on top. Repeat process.

If you have a plant with a large amount of water, use more newspaper and expect to change the newspaper daily for a few days until the moisture is gone. If you fail to do so, it may mold.

Don’t put a plant inside your notebook without drying it first, as it will mold.

This will all be reviewed on Friday in detail. Ann Viera will be present to provide you with additional resources. A few toxic plants may make an appearance with permission of Dr. Kerr.

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