

## **Profile, Phenology, and Propagation Trial of some Indigenous Pesticidal Plant Species**

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### **Abstract**

*An observation study on the profile and phenology of some pesticidal plant species: Malasantol (*Sandoricum vidalii* Blume), Uas (*Harpulia arborea* (Blanco) Radlk.), Tuba (*Croton tigilium* Linn.), and Anumoy (*Diospyrous* sp. Blume) was conducted to gather essential information on the reproductive growth of the species focusing on the duration of flowering and fruit/seed maturity and availability to insure proper timing of seed collection. Propagation trial was also conducted using seeds of the species laid out in a Completely Randomized Design (CRD) experiment. The objective was to determine the effect of pre-sowing treatments on the germination and early growth of seedlings of the species. Results revealed variable information on flower bud formation, flowering periods, fruiting and fruit/seed availability, and shoot formation and maturation of the species with respect to duration and months of the year. Data on duration of germination specifically germination starting and germination ending, percentage germination, and the weight of seedling biomass were gathered and analyzed. Results of propagation trials revealed that cold soaking as pre-sowing treatment significantly reduced germination period in all the species evaluated. Results also showed significant improvement on the early growth of seedlings from seeds subjected to pre-sowing treatments.*

**Keywords:** *phenology, germination period, pre-sowing treatment*

**Growth and Yield Performance of Heirloom Rice (*Imbu-okan* Var.) Grown Using Traditional and Science and Technology-Based Practices in Ifugao**

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**Abstract**

*The use of science and technology- based practices for high yielding rice production was tested to generate technology that will shorten the maturity and increase the yield of heirloom rice “Imbu-okan” variety in Ifugao. Results revealed that the Science and Technology based practices such as transplanting seedlings at 25 days-old, draining the water level in the paddy during transplanting, proper water management and correcting nutrient deficiencies in the soil shortened the maturity of the heirloom rice by 26 days, significantly increased the number of tillers and increased yield by 49 %.*

**Keywords:** *heirloom rice, Imbu-okan variety, S &T based practices, traditional rice practices*

**Phenology and Acclimatization Trial of the Hanga Tree  
(*Pittosporum resiniferum*)**

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**Abstract**

*The study focused on the vegetative and reproductive phenological characterization of matured Hanga trees (*Pittosporum resiniferum*) in situ at sitio Bulhi, Mapaway, Mayoyao, Ifugao. Acclimatization trial of germinated seedlings grown on-site and brought to Ifugao State University (IFSU) - Potia campus nursery was also conducted. Observations started from April 2010 to March 2011. In situ phenological and botanical characterization was done on five Hanga trees. Phenological characterization made use of the phenology score card for tropical trees while characterization of fruits and other parts of the tree was done through visual observations. The oil content of the Hanga fruit was also studied through a laboratory test. Transplanted and relocated Hanga seedlings were mainly observed on their reaction to warm temperature. Result of laboratory trial showed that matured Hanga nuts can produce 2.5-4 ml oil extract per nut; and phenological data reveal that Hanga trees can bear fruit twice a year. Findings on the Hanga acclimatization trial showed that it could readily acclimatize and adapt itself ex situ where the humidity is very much lower and the temperature is higher than its natural habitat.*

**Keywords:** *phenology, acclimatization, Hanga tree, petroleum nuts, biofuel*

# The Effects of Cooperative Learning on the Academic Achievement of College Freshmen in Plane Trigonometry

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## Abstract

*This experimental study made use of the pretest-posttest design to determine the effects of cooperative learning on the academic achievements of college freshmen in plane trigonometry at Ifugao State University (IFSU) – Lamut, Ifugao during the school year 2011 – 2012. Sections 1A and 1D of the Bachelor of Science in Criminology freshmen were assigned as the control group and experimental group, respectively. The study used an achievement test as data gathering instrument. The internal reliability of the tool and coefficient of correlation between the two try-outs were estimated using the Kuder-Richardson Formula 20 ( $Kr_{20}$ ) and the Pearson Product-Moment Coefficient of Correlation, respectively. The performances of the respondents in the pre-test and post-test were described in terms of means and standard deviations. Furthermore, the researcher made use of the t-test to determine whether the difference in the mean gain score between the two groups was significant at 0.05 alpha level. Data analysis revealed that there were significant differences between the pre-test and post-test results of both the control group and the experimental group. Moreover, there was no significant difference in the result of the pre-test between the two groups, but there was a significant difference in the result of the post-test between the control and experimental group. Also, the mean gain score of the experimental group was significantly higher than the control group. These evidences thus confirm that cooperative learning enhances academic achievement.*

**Keywords:** cooperative learning, academic achievement, plane trigonometry

# **Volunteer Nurses in the Health Care Delivery Systems in Ifugao: Towards an Evidenced-Based Policy Making**

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## **Abstract**

*This study sought to determine the status of volunteer nurses in terms of their economic condition, working environment and motivation. The level of competence, strengths and weaknesses in terms of their health care delivery were also assessed. Descriptive method was used in this study. Survey questionnaire, guided interview and focus group discussion were the methods employed in the data gathering. Data gathered were triangulated for verification and supplementation. The result showed that the main problem of the volunteer nurses is the lack of financial support from the health institutions and the government. This included economic problems like lack of transportation, allowances and incentives. Other problems included lack of laws or guidelines concerning the status of volunteer nurses. Despite such concerns, most of the nurses are motivated in their work since they view it as an opportunity to enhance their knowledge and skills, and achieve self-fulfillment. Findings also revealed that the volunteer nurses are very satisfactory in their services in terms of assessment, planning, implementation, evaluation of nursing interventions, professionalism and commitment. The perceived strengths of the volunteer nurses were their initiative and cooperative spirit. On the other hand, the perceived weaknesses included lack of confidence and tardiness.*

**Keywords:** *volunteer nurses, delivery systems, health care, evidence-based policy*

## The Emotional Intelligence Scores among College Students at Ifugao State University

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### **Abstract**

*The study explored the emotional intelligence scores of college students at the Ifugao State University (IFSU). The research sample was composed of eight hundred students who were enrolled in the university during the school year 2010-2011. Personal information sheet was used to obtain the demographic information. The emotional intelligence survey questionnaire, which was adopted from the emotional intelligence test made by Dizon (1999) from SLU, Baguio City was used to find out the level of emotional intelligence among the subjects. The findings of the study disclosed that in general, the respondents had high level of emotional intelligence. The results showed that the females are more emotional than their male counterparts; those who graduated from the public high schools scored higher than those from the private schools; and the occupation of the mothers of the respondents are significantly related to their emotional intelligence levels. The five areas of the respondents' emotional intelligence significantly differ from each other. The respondents' level of managing relations differs greatly with mood management, self-awareness, self-motivation and empathy. Aside from such, their self-awareness differs significantly with their self-motivation; and self-motivation with empathy.*

**Key Words:** *emotional Intelligence, college students, males, females*

## Review Article

### Technological Solution to Solid Waste Management in the Philippines

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#### Summary

*The passage of RA 9003 in 2001 was a big milestone for the Philippines to move towards a more effective management of its solid waste. However after more than 10 years of its existence, the law failed to spur the growth of investments toward improving the large scale urban solid waste disposal systems. Except for some few Controlled Disposal Facilities (CDF), and the development of Material Recovery Facilities (MRF), the country in general still uses the same old and environmentally unsafe open dumping and burning of solid wastes. The available technological solution to improve the large scale treatment and disposal of solid waste in urban centers are presented in this paper. It includes the development of waste recycling plants, the use of bio-engineered composting technology, development of modern sanitary landfill systems, waste to energy/incineration system and the special treatment of hospital /infectious wastes. Technological solutions to solving urban solid waste management problems are available in the market and they can be tapped to provide a cleaner and safer living space for people and a means to mitigate climate change vulnerabilities.*