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#### **PALYNOASSEMBLAGE AND ENVIRONMENT OF DEPOSITION IN THE LOWER GONDWANA SEDIMENT (RANIGANJ FORMATION) OF SONEPUR-BAZARI COALFIELD IN BURDWAN DISTRICT, WEST BENGAL**

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**Abstract:** Palynological study of the bore hole sediments (BZ-070) from Sonepur-Bazari Open Cast coalmine (Raniganj Formation) in Burdwan district, West Bengal has revealed the presence of Upper Permian palynoflora. A total of 12 species of palynomorphs belonging to 9 genera have been recovered. From the comparison of early records of miospores from Lower Gondwana it is revealed that present miospore assemblage dominated by striate disaccate grains. A warm, temperate climate is suggested during the deposition of sediments based on microfloral assemblage.

**Keywords:** Palynoflora, Raniganj Formation, Upper Permian, Sonepur-Bazari Coalfield

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#### **GROWTH AND YIELD OF CABBAGE (*BRASSICA OLERACEA* VAR. *CAPITATA* L.) UNDER MULCH WITH DRIP IRRIGATION IN RAICHUR CONDITION**

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**Abstract:** An experiment was conducted to investigate the effect mulch and without mulch with three level of drip irrigation viz., 80% 100% and 120% ET and furrow irrigation on cabbage growth and yield under Raichur climate. The study showed that the drip irrigation saved water at the levels of 80, 100 and 120 per cent ET over furrow irrigation system was found to be 62.06, 54.50 and 46.94 per cent respectively. The better plant growth, more number of leaves per plant and higher leaf area were observed in under plastic mulch with drip irrigation. The highest yield was recorded in 100% ET with mulch plot (92.95 t ha<sup>-1</sup>) and lowest yield was observed in furrow irrigation without plastic mulch (50.64 t ha<sup>-1</sup>). The plastic mulch increased the yield 8.82% more than the without plastic mulch field.

**Keywords:** Cabbage, Growth, *Brassica oleracea*

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## **FLORISTIC DIVERSITY AND STRUCTURAL ANALYSIS OF MANGROVE FORESTS AT AYIRAMTHENGU, KOLLAM DISTRICT, KERALA**

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**Abstract:** Vegetation science is a scientific discipline devoted to study plant communities, their composition, evolution and the relationships among the component species. The present study focuses on floristic diversity and richness of the Mangroves in Ayiramthengu, Kollam district. A total of 9 species belonging to 6 families were enumerated. The forests showed a dominance of *Avicenna marina* followed by *Avicennia officinalis* belonging to Avicenniaceae family, whereas *Sonneratia caseolaris* recorded lowest density. Maximum relative basal area was represented by *Avicennia marina* followed by *Avicennia officinalis*, therefore these species registered the highest Importance value index (IVI) and relative IVI among the 9 mangroves species distributed. Diversity indices such as Shannon Weiner index  $H'$  (2.763), equitability (0.872) and Simpson's diversity index (0.825) was worked out for the entire Ayiramthengu island. The mangroves are closely related to the social and cultural life of people in Ayiramthengu and its unique composition has to be protected in its pristine condition.

**Keywords:** Mangrove forest, Floristic composition, Diversity indices, Important value index

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## **CHARACTER ASSOCIATION FOR OIL CONTENT IN GROWING PLANTS OF PHYSIC NUT [*JATROPHA CURCAS* (L.)]**

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*Received-21.01.2015, Revised-25.02.2015*

**Abstract:** To study variability and character association for oil content 26 characters which includes vegetative, flowering, fruit and quality characters were recorded on 3 and 4 year old plants of 56 germplasm lines in the years 2007 and 2008. Analysis of variance revealed significant differences among the genotypes for all the traits except for number of primary branches per plant in both the years. Correlation of oil content with plant height, stem girth, number of fruits per fruiting branch, petiole length, number of secondary branches per inflorescence, weight per fruit, 100-seed weight, seed yield per plant, seed content and kernel: shell ratio was significant positive in both the years. The positively correlated characters which exhibited positive direct effects on oil content were seed content, number of fruits per fruiting branch, weight per fruit and kernel: shell ratio at both the ages. Significant inter correlations were also existed among the characters associated with oil content.

**Keywords:** Genetic variability, Oil Content, Correlation, *Jatropha*

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## **STUDY THE AREA, PRODUCTION, PRODUCTIVITY AND COST OF CULTIVATION OF TOMATO IN THE JASHPUR DISTRICT OF CHHATTISGARH**

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**Abstract:** Tomato being a rich and cheap source of vitamins (A and C) and minerals, occupy an important place in food basket of Indian consumer. Tomato is an important cash crop. An attempt has been made in the study to examine the production and marketing aspects of tomato in Jashpur district.

The present study was conducted in the Jashpur districts of Chhattisgarh. Sixty farmers were selected randomly from three villages namely Ludeg, Saraitola and Katangjor and were categorized into marginal, small, medium and large farmers based on their holding size. The primary data were collected for the year 2010-11. The major findings of this study revealed that the average size of farm was worked out to be 1.93 hectares, overall on an average cropping intensity was observed to be 101.64 per cent. Out of total cropped area kharif, rabi, and zaid crops occupied about 88.38, 8.32 and 3.22 per cent of total cropped area respectively. On an average the cost of cultivation per hectare of tomato was found Rs. 26576.89. Overall on an average the cost of production per quintal of tomato was observed as Rs. 222.84. Cost of production per quintal of these vegetables shows decreasing trend with increase in farm size where as cost of cultivation increases with increase in the farm size. Overall on an average the input-output ratio and Benefit-Cost ratio of tomato came to 1:3.70 and 1:2.70, respectively on the sample farms. The cost and return on average cost-A, cost-B, and cost-C were 16026.99, 18526.99 and 29254.64 Rs/ha. More than ninety five per cent marketable surpluses were observed in the tomato crops in different size groups of farmers. Average marketable surplus in tomato was 117.06 qtl./ha.

**Keywords:** Area, Cost of cultivation, Production, Productivity

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## **EFFECT OF DIFFERENT RATE OF SULPHUR SOURCES ON GROWTH, YIELD AND QUALITY OF SESAME (*SESAMUM INDICUM* L.) GROWN IN THE ALLEY SPACE OF GUAVA (*PSIDIUM GUAJAVA* L.)**

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**Abstract:** A field experiment was conducted in a sandy loam soil during *kharif* season, 2012-2013 at Rajiv Gandhi South Campus, Barkachha, BHU, Mirzapur, Uttar Pradesh, India to find out the effect of different rate of sulphur sources on growth, yield and quality of sesame (*Sesamum indicum* L.) grown in the alley space of guava (*Psidium guajava* L.). The experiment was laid out in a randomized block design with 3 replications and three sources of sulphur viz. single super phosphate, gypsum and elemental sulphur and three levels of sulphur viz 15, 30 and 45 kg ha<sup>-1</sup> with control. The total treatment combination for all the levels were ten (T<sub>1</sub>-Control, T<sub>2</sub>-15 kg Sulphur ha<sup>-1</sup> through SSP, T<sub>3</sub>-15 kg Sulphur ha<sup>-1</sup> through ES, T<sub>4</sub>-15 kg Sulphur ha<sup>-1</sup> through gypsum, T<sub>5</sub>-30 kg Sulphur ha<sup>-1</sup> through SSP, T<sub>6</sub>-30 kg Sulphur ha<sup>-1</sup> through ES, T<sub>7</sub>-30 kg Sulphur ha<sup>-1</sup> through gypsum, T<sub>8</sub>-45 kg Sulphur ha<sup>-1</sup> through SSP, T<sub>9</sub>-45 kg Sulphur ha<sup>-1</sup> through ES, T<sub>10</sub>-45 kg Sulphur ha<sup>-1</sup> through gypsum). The crop was fertilized with recommended dose of NPK of 60:30:30 kg ha<sup>-1</sup>. Results revealed that application of 45 kg S ha<sup>-1</sup> through elemental sulphur recorded the highest plant height, number of branch plant<sup>-1</sup>, dry matter accumulation, capsules plant<sup>-1</sup>, seeds capsule<sup>-1</sup>, seed weight plant<sup>-1</sup> and test weight, seed yield, stover yield, biological yield, harvest index, protein content per cent, oil content per cent, carbohydrate per cent, total nutrient uptake and available nutrient in soil. It was significantly superior over 45 kg S ha<sup>-1</sup> through gypsum over rest of the treatment. The highest net monetary return (Rs. 24921.27 ha<sup>-1</sup>) and Benefit: Cost (B: C) ratio (1.52) was obtained when 45 kg sulphur was applied through elemental sulphur this was also found to be best treatment for sesame.

**Keywords:** Sesame, Agroforestry, Sulphur, Alley space, Oil content, Benefit

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## **ROLE OF SOIL FLORA IN SOIL PHYSICAL CONDITION IMPROVEMENT AND THEIR IMPACT ON PLANT GROWTH**

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**Abstracts:** Soil physically supports plants, and acts as a reservoir for storing the water and nutrients required for the plants. Good physical condition facilitates oxygen and water infiltration and can improve water storage, increasing fertilizer use efficiency in plants, ultimately, improves productivity of soil. The soil is teeming with millions of living organisms which make it a living and a dynamic system. These organisms not only help in the improvement of soil physical condition but also carry out a number of transformations, facilitating the availability of nutrients to the plants.

**Keywords:** Soil, Plant growth, Nutrient

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## **DETERIORATIVE EFFECT OF ASSOCIATED FUNGI ON STORED SEEDS OF FENNEL (*FOENICULUM VULGARE* MILL.)**

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**Abstracts:** Toxic metabolites of all the pathogenic fungi had reduced seed germination, root and shoot elongation and seedling vigour. The per cent volatile oil content in seeds inoculated with *Aspergillus flavus* increased while it decreased in seeds inoculated with *Alternaria alternata*, *Rhizopus oryzae* and *Fusarium oxysporum* remain equal to control in *Rhizopus oryzae*.

**Keywords:** Fungi, Seed, Fennel

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## STUDY ON SEASONAL INCIDENCE OF MAJOR INSECT PESTS OTHER THAN RICE GALL MIDGE ON FINE SLENDER RICE GENOTYPES IN THE NORTHERN HILL REGION OF C.G

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**Abstracts:** Rice is consumed by more than half of the world's population. In Asia alone, more than 2 billion people obtain 60 to 70 percentage of their energy intake from rice and its derivatives. Only 4-5 percentage of world rice production enters the global market. A part from food, rice is intimately involved in the culture as well as economy of many societies. The cultivation of rice is done under more diverse conditions than any other food crop, ranging from irrigated to rainfed ecology and upland to deep water conditions. In world, rice has occupied an area of 154 million hectares, with a total production of 476 million tonnes and productivity 2949 kg ha<sup>-1</sup> (Anonymous, 2012). India has largest area among rice growing countries and enjoys the second rank in production. India has 45.5 million hectares, total cultivated area under rice, with the production of 105.31 million tonnes and productivity 2393 kg ha<sup>-1</sup> (Anonymous, 2013 a).

**Keywords:** Insect, Pest, Rice, Chhattisgarh

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## EFFECT OF DIFFERENT PLANTING SYSTEM AND SULPHUR LEVEL ON YIELD AND QUALITY OF CASTOR (*RICINUS COMMUNIS* L.) INTERCROPPED WITH CLUSTERBEAN [*CYAMOPSIS TETRAGONOLOBA* (L.) TAUB] UNDER BAEI BASED AGRI-HORTI SYSTEM B.L. Sharma<sup>1</sup>, R.N. Meena<sup>2\*</sup>, Y.K. Ghiloria<sup>3</sup> and J.P. Singh<sup>4</sup>

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**Abstract:** A field experiment was conducted during *kharif* season of 2013-14 at Agricultural Research Farm, Rajeev Gandhi South Campus (Banaras Hindu University), Barkachha, Mirzapur, Uttar Pradesh, to investigate, "Effect of different planting system and sulphur level on yield and quality of castor (*Ricinus communis* L.) intercropped with clusterbean [*Cyamopsis tetragonoloba* (L.) Taub] under bael based agri-horti system". The treatment comprised of 4 different planting systems (PS<sub>1</sub> =1:2), (PS<sub>2</sub> =1:4), (PS<sub>3</sub> =1:6), (PS<sub>4</sub> =1:8) as main plots and 3 levels of sulphur (S<sub>1</sub> =25 kg ha<sup>-1</sup>), (S<sub>2</sub> =50 kg ha<sup>-1</sup>), (S<sub>3</sub> =75 kg ha<sup>-1</sup>) as sub plots replicated thrice in a split-plot design. Significant improvement in the yield and yield attributes and quality of castor and clusterbean component crops was observed under PS<sub>3</sub>, (1:6) treatment and application of (S<sub>2</sub>), (50 kg ha<sup>-1</sup>) recorded significantly higher, yield and yield attributes parameters and stalk yield of castor and clusterbean parameters. Similar effect of these treatments was observed on N, P, K, and Sulphur content and total uptake in grain and straw of castor and clusterbean treatments. And also recorded higher gross return (133955 Rs. ha<sup>-1</sup>) with net returns (116285 Rs. ha<sup>-1</sup>), and B: C ratio (6.58) under PS<sub>3</sub>, (1:6) treatment. **Keywords:** Planting system, Castor, Clusterbean, Sulphur, Intercropping, Bael, Agri-horti system

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## PHENOLOGICAL EFFICIENCY AND YIELD TRAITS OF RICE (*ORYZA SATIVA* L.) UNDER DIFFERENT MOISTURE REGIMES

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Received-17.12.2014, Revised-02.02.2015

**Abstract:** Among the breeding lines R-RF-90, Mahamaya and MTU-1010 ranked relatively superior regarding their morpho- physiological and yield traits. Least reduction in yield was noticed in R-RF-89 and Vandana in rainfed and transplanted (TSD) condition. Mahamaya (57.88) exhibited maximum time to initiate the panicle followed by IR-64 (56.63). The maximum days taken to anthesis was recorded under rainfed condition (65.40) followed by irrigated (57.79) and transplanted (57.45). Mahamaya (68) exhibited maximum time to anthesis. Days to 50 % flowering was noticed maximum in rainfed condition (70.11) followed by irrigated (62.42) and transplanted (62.08). Direct sown (60.51) recorded minimum time to attain 50% flowering. Mahamaya (72.75) exhibited maximum time to days to 50 % flowering followed by IR-64 (71.38). Genotypes in direct sown condition (112.97) recorded more time to mature under different moisture regimes followed by irrigated (101.05) and rainfed condition (90.8). Rice genotypes in transplanted condition (88.25) exhibited minimum time to mature as compared to other moisture regimes. Mahamaya (110.13) exhibited maximum time to days to maturity followed by IR-64 (109.63). Among the breeding lines R-RF-90, Mahamaya and MTU-1010 ranked relatively superior regarding their morpho- physiological and yield traits. Least reduction in yield was noticed in R-RF-89 and Vandana in rainfed and transplanted (TSD) condition.

**Keywords:** Rice, Moisture regimes, Traits, *Oryza sativa*

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## **MORPHOLOGICAL AND BIOCHEMICAL STUDIES IN HEALTHY AND INFECTED PLANT PARTS OF *ORYZA SATIVA***

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**Abstract:** Pollen morphology is a very minute structure enclosed in the entire body of plant. It contains all genetic information for a complete plant. It has great significance particularly in plant taxonomy. Results of present investigation revealed the effect of infection on the uptake rates of total N and P and its distribution in selected plant parts clearly define the nutritional aspects and role of macronutrients and pigments in growth and development. Our observation indicates that non-acetolysed pollen grains of *Oryza sativa* show reduction in size as compared to that of acetolysed pollen grains. Likewise total N, P and chlorophyll content uptake and its distribution in plant parts decline in infected plant parts as compared to healthy plant parts as in stem, leaf, anther & pollen grains.

**Keywords:** Acetolysis, Fungal infection, Pollen grain, Rice, Total N .P., Chlorophyll development

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## **OPTIMISED METHODOLOGY FOR HIGH QUALITY DNA ISOLATION FROM LEAVES AND SEEDS OF FENNEL (*FOENICULUM VULGARE*)**

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**Abstract:** In this study, an efficient, simple and rapid protocol is described for high quality DNA isolation from leaves and seeds of fennel (*Foeniculum vulgare*). The protocol gives highly reproducible results and can be carried out easily. Young leaves and seeds of fennel were kept at -80° C for 20 min to freeze the tissues and make the grinding easy without any tissue damage. This protocol eliminates the use of liquid nitrogen. The protocol is inspired by the CTAB method and Sambrook principles.

**Keywords:** Seed spices, DNA, Fennel, Seeds, Leaves

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## **ESTIMATES OF VARIABILITY PARAMETERS FOR YIELD AND ITS COMPONENTS IN LINSEED (*LINUM USITATISSIMUM* L.)**

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**Abstract:** The present study of genetic variability was carried out using 30 genotypes of linseed for 10 quantitative characters. The results showed significant differences and wide range of variability for all the characters. The seed yield per plant was recorded highest values for phenotypic and genotypic coefficients of variation followed by number of capsules per plant. The high heritability coupled with high genetic advance as percent of mean was observed for seed yield per plant, test weight, capsules per plant, plant height, branches per plant, days to first flowering and days to 50% flowering indicated the predominance of additive gene action in the expression of these traits and can be improved through individual plant selection.

**Keywords:** Linseed, Variability, Heritability

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## **STUDY THE MARKETING COST AND PRICE SPREAD UNDER DIFFERENT MARKETING CHANNEL OF TOMATO IN JASHPUR DISTRICT OF CHHATTISGARH**

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*Received-17.01.2015, Revised-03.02.2015*

**Abstract:** The present study was conducted in the Jashpur districts of Chhattisgarh. Sixty farmers were selected randomly from three villages namely Ludeg, Saraitola and Katangjor and were categorized into marginal, small, medium and large farmers based on their holding size. The primary data were collected for the year 2010-11. The major findings of this study revealed that the average size of farm was worked out to be 1.93 hectares, overall on an average cropping intensity was observed to be 101.64 per cent. Out of total cropped area kharif, rabi, and zaid crops occupied about 88.38, 8.32 and 3.22 per cent of total cropped area respectively. On an average the cost of cultivation per hectare of tomato was found Rs. 26576.89. Overall on an average the cost of production per quintal of tomato was observed as Rs. 222.84. Cost of production per quintal of these vegetables shows decreasing trend with increase in farm size where as cost of cultivation increases with increase in the farm size. There were two marketing Channels for tomato, which are: Channel-I: Producer–Village-merchant–Wholesaler–Retailer–Consumer and Channel-II: Producer–Retailer–Consumer. That price received by tomato producer was 800 Rs/ql. in both Channels. The major constraints pertaining to cultivation of tomato was problem of decreasing yield due to growing the crop regularly in same field and lack of irrigation. A major constraint in marketing of tomato was fluctuation of price and storage facility in the study area. In view of findings study suggested that the Irrigation facilities are to be developed in the proper way so that farmers can adopt improved technologies with assured irrigation facilities. Extension agencies should provide information on new varieties and package of practices as well as procedures of standardization, grading of produce and their benefits. Horticultural crop producer’s co-operative societies should be formed for better performance and achievement. Some specific minimum prices should be declared for tomato to ensure benefit for the producers.

**Keyword:** Constraints marketing channel, Tomato

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## **EFFECT OF DIFFERENT FLORAL PRESERVATIVES SOLUTIONS ON POST HARVEST QUALITY OF TUBEROSE (*POLIANTHES TUBEROSA* L.) CV. DOUBLE**

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**Abstract:** The present study was conducted during 2013-14 to prolong the post-harvest life of tuberose using single or combined holding solutions. Twelve holding solutions, viz. T<sub>1</sub>: 300ppm Al<sub>2</sub>SO<sub>4</sub> T<sub>2</sub>: 100ppm CoCl<sub>2</sub> T<sub>3</sub>: 5%Sucrose + 300ppm Al<sub>2</sub>SO<sub>4</sub>, T<sub>4</sub>: 5%Sucrose + 250ppm Citric Acid T<sub>5</sub>: 5%Sucrose + 25 ppm KMnO<sub>4</sub>, T<sub>6</sub>: 5%Sucrose + 100ppm CoCl<sub>2</sub> T<sub>7</sub>: 200ppm Citric Acid T<sub>8</sub>: 5%Sucrose + 200ppm Citric Acid, T<sub>9</sub>: 5%Sucrose + Calcium hypochlorite(Ca(ClO)<sub>2</sub>), T<sub>10</sub>: 5%Sucrose + 200ppm 8HQ, T<sub>11</sub>: 5%Sucrose + 200ppm 8HQ + GA<sub>3</sub> 100ppm and T<sub>12</sub>: Control (Deionized water) were used in a completely randomized block design with 3 replications. The results showed that holding solutions in single or in combined form significantly affected the post harvest quality of tuberose. The maximum vase life, floret size, vase life of individual flower, floret opening percentage and solution absorption by spikes were obtained with T<sub>4</sub> (5%Sucrose + 250ppm Citric Acid) while maximum days to opening of basal florets and number of florets open at senescence of basal floret were obtained when spikes were held in containing the solutions (5%Sucrose + 300ppm Al<sub>2</sub>SO<sub>4</sub>) under the treatment T<sub>3</sub>.

**Keywords:** Pulsing solution, Holding solution, Floral preservatives solutions, Tuberose, Vase life

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## **SOIL VEGETATION INTERRELATIONSHIP IN EUCALYPTUS AND SHISHAM PLANTATIONS OF DEHRADUN**

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**Abstract:** The soils under two Plantations i.e Eucalyptus (*Eucalyptus globulus*) and Shisham (*Dalbergia sissoo*) were analysed for physio-chemical properties and vegetation analysis. Soil samples were analyzed for texture, water holding capacity, pH, available potassium, available phosphorus, total nitrogen, organic carbon, electrical conductivity, calcium and magnesium. Average available potassium was maximum (73.00ppm) in *Eucalyptus globules* plantation, whereas it was (32.00ppm) in shisham plantation. Similarly available phosphorus was highest in Eucalyptus (18.17ppm) whereas in shisham it was (2.75ppm). Organic carbon and total nitrogen were also maximum under eucalyptus plantation. The soil pH under eucalyptus was near neutral, whereas it was slightly acidic in shisham. The average available calcium and magnesium were also higher in eucalyptus plantation. The average electrical conductivity in both the plantations was 0.03dsm<sup>-1</sup>. The highest tree density was 733 trees ha<sup>-1</sup> in shisham plantation, declining to 433 trees ha<sup>-1</sup> in eucalyptus plantation.

**Keywords:** Eucalyptus, Nutrients status, Physico-chemical, Soil, Shisham, Vegetation

**RESPONSE OF GENOTYPES AND GROWTH REGULATORS ON NUTRIENT UPTAKE, ECONOMICS AND ENERGY OUT-PUT OF PIGEONPEA (*CAJANUS CAJAN* (L.) MILLSP) IN *VERTISOLS* OF CHHATTISGARH PLAINS** Tej Lal Kashyap, G.K. Shrivastava, R. Lakpale and N.K. Choubey

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**Abstract:** In Chhattisgarh, pigeonpea occupies an area of 164.72 m ha with a production of 85.69 m t and productivity of 520 kg ha<sup>-1</sup>. Present study was undertaken to assess the effect of genotypes and growth regulators on nutrient uptake, economics and energy output of pigeonpea in *Vertisols* of Chhattisgarh plains. Field experiment was conducted during *kharf* (rainy) season of 2000-01 at IGKV, Raipur on *Vertisols* having pH 7.19 with available N 218, P 12.15 and K 363 kg ha<sup>-1</sup>. The N and K uptake were found to be higher in cv. Asha, even though their concentration was low; it is due to higher biological yield of cv. Asha. As regards to economics comparison of both cultivars, the gross and net realization estimated to be significantly higher in cv. Asha than cv. C-11. Highest seed protein content was observed in 2,4-D, which corroborates the findings of Borriobera *et al.* (1995). Protein yield was found to be highest in cycocel and 2,4-D for seed and stalk respectively. Economics of pigeonpea production was influenced by growth regulators. Highest gross and net realization were found in cycocel treatment **Keywords:** Growth regulators, Economics, Nutrient uptake

**PRODUCTION POTENTIAL OF DIFFERENT VARIETIES OF SORGHUM (*SORGHUM BICOLOR* L.) UNDER SEMI ARID AGRO-ECOLOGICAL SITUATIONS**

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**Abstract:** Five shorgum varieties were evaluated and compared with farmers' local variety for their grain and straw yield at farmers' own field. The results revealed that sorghum varieties differed significantly for grain and straw yield. Among varieties, CSV 15 recorded highest grain (1945 kg ha<sup>-1</sup>) and straw (12200 kg ha<sup>-1</sup>) yield. The results proved that the CSV 15 was most suitable varieties under prevailing climatic condition of the study area.

**Keywords:** Shorgum, Variety, Grain, Straw yield, Production

**THE NEGLECT OF POTASSIUM: NECESSITY OF K FOR CROP SUSTAINABILITY A REVIEW**

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**Abstracts:** In ancient time, agriculture was more or less sustainable due to regular organic fertilization. Due to various economic constraints, farmers are forced to apply agrochemicals that give higher returns resulting in relatively high N input and a coincidental decrease of other nutrients including K. This situation is accompanied by negative K balance for many agricultural regions and indicates only a short- term consideration. A long term neglect of K would result in a non-sustainable situation for crop productivity.

**Keywords:** Productivity, Crop, Potassium, Agrochemicals