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Editorial

The basic and most important unit of the society has been the family from the beginning. For the empowerment and development of the country, first of all it is necessary to pay attention to the moral, social, economic and cultural dimensions of basic institutions like family. Balanced development of the family is very important for the development of the society. Therefore, if we want to have a complete and balanced development of the country, then we need to lay maximum emphasis on the basic institution called family. It is necessary that we should not make any discrimination between son and daughter in the family and we must explain this to our sons and get them involved in their activities. Even today, those who belong to the old belief believe that a woman cannot get any freedom, she cannot go anywhere alone, she cannot roam anywhere alone, but today's youth refuse to accept these values.

Some people also say that the importance of the walls in the house, the same importance is given to the education of the boys in the society. But how is a house made? Who are in the base of the house? The base of the house is our daughters, our girls, that means they are related to the roots. If our root becomes weak in the society, then our house or house cannot be strong at all. There is a need to understand this social context in reality.

The extent of favoritism is reached when we see discrimination in small tasks. Some people think that a girl is someone else's wealth, what job she should do. That's why some parents discriminate between boys and girls and this discrimination is visible somewhere in our behavior, in feeding and dressing. This is sheer injustice. God has given the same brain to boys and girls and today girls are proving it by bringing better results.

Girls stay at their parents' house for only a few days, so it is our duty to pay deep attention to their education, upbringing, only then we can fulfill the concept of a strong society. God has made us the trustee of our children so it is our duty to treat all members equally with full justice because both boys and girls have same power, same soul. So we should give them equal opportunities for development.

The basic objective of women empowerment is the development of women and communication of self-confidence in them. Women empowerment is important for the overall development of the society. Empowerment of women is the most important social phenomenon because they are the creators. If you empower them, make them strong, encourage them, it is better for the society. Women and men are the basis of creation and human society. Both complement each other. These are the wheels of the chariot of life by which the journey of life runs

smoothly. The role of both has been equally important for stability in family and society. The basis of change and development in a society depends on the mutual interaction of men and women, walking step by step and equal mobility of both. A chaotic situation is created in social life when any one side lags behind. The history of mankind is witness to this that where women have been neglected, the development of the society has been stunted. The role of women in creation of creation, education of children, upbringing of family is much more important than that of men, thus her position becomes central in the society. Therefore, without the progress of women, there can be no upliftment of mankind and society. As far as India is concerned "Yatra Naryastu Pujayante Ramante Tatra Devta" means where women are worshipped. The deities reside there. With this ideal any Indian woman can feel pride in comparison to the western woman. The ideal of learning in Saraswati, the ideal of wealth in Lakshmi, the ideal of valor in Durga, the ideal of purity in Ganga, even the ideal of creation in the form of Jagad Janani we find only in India.

Professor Akhilesh Shukla
Chief Editor

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Random-amplified polymorphic DNA profiling of isolates from dung sample of camel for sorting out distinct isolates

• **Shikha Tiwari**

Abstract- *In the present study microbial diversity of camel dung was studied. Total 1500 bacteria were isolated from camel dung of fourteen camels. Serially diluted samples were spreader on different media plate like CMC agar plates, starch agar plates, pseudomonas agar plates, Luria bertani agar plates, wheat straw agar plates and lignin agar plates. There are 120 bacterial isolates out of 400 bacterial isolates that were giving above enzyme activity index over 3 Later on, RAPD was conducted and 15 distinct isolates were obtained.*

Keywords- *Camel dung, cellulose and RAPD.*

Introduction- Cellulose is one of the most abundant biomass on the earth and possesses great potential to resolve energetic and environmental demands of bio energy (Khatiwada et al. 2016). Cellulose is the major constituent of plant cell wall and most abundant cost efficient renewable energy source with maximum annual output. Cellulose rich plant materials obtained as agriculture byproducts and industrial residues are the most abundant inexpensive and renewable resource on the earth. Cellulose production is estimated to be more than 220 billion tons annually (Ren et al. 2009).

In present study we are Isolation and screening of microbial diversity in camel dung found in cellulase activity. Molecular characterization of DNA sample by using Random Amplification of Polymorphic DNA (RAPD-PCR).

Materials and Methods

Sample collection- Camel dung was provided , in which Fourteen camel dung given was taken as a sample Then 500mg weight to each camel dung then Appropriately diluted sample were spreaded on different media plate like CMC agar plate , starch agar plates , pseudomonas agar plate , wheat straw agar, lignin agar plate , Luria bertani agar plate , reinforced clostridia agar plate then screening of cellulolytic bacteria. Freeze. For culturing 30gram dung sample was collected without any filtration (Mixture of liquid and solid fraction).

Spreading the samples- 14 Samples are diluted menace 100 ul sample 900 ul phosphate buffer saline. After serial dilution of the sample (10^{-1} to 10^{-7}), 100 ul of each diluted sample was spread on CMC agar plate (1% CMC, 2.5% agar), starch agar plate(1% starch, 2.5 %agar), pseudomonas agar plate

• Research Scholar, Department of Biotechnology, A.P.S. University, Rewa (M.P.)

(1% pseudomonas 2.5% agar), lignin agar plate (1%lignin bacterium ,2.5% agar), Luria bertaini agar plate (1%luria bertani,2.5% agar), reinforced clostridia agar granulated plate (1% reinforced clostridia 2.5% agar), and wheat straw agar plate(1% wheat straw ,2.5%agar). After spreading Luria bertaini agar plate, and reinforced clostridium agar plate are incubated at 37^0C of anaerobic condition in anaerobic jar. Another plate like carboxyl methyl cellulose(CMC) agar plate (1% CMC, 2.5% agar), starch agar plate(1% starch, 2.5 %agar), pseudomonas agar plate(1% pseudomonas 2.5% agar), lignin agar plate (1%lignin bacterium, 2.5% agar), wheat straw agar plate (1%wheat strow,2.5%), are incubated at 37^0C in aerobic condition. For 24 hours to 48 hours.

Colony Isolation- After incubation for 24 hours all media plates 24 hours to 48 hours at 37^0C colony are grow on plates. Isolated colony are pick on the basics of their morphology and biological change like color, shape, size, etc. and transfer for 800 up Luria Bertaini broth media and incubate at 37^0C for 48 hours to 72hours.

RAPD Procedure-

- Isolation and extraction of template DNA was done by NT-DNAmethod
- The RAPD 'reaction master mixture' was prepared for total reaction volume of 25 µl(single reaction) using 'Takara'kit.
  Reaction mixture for single reaction:
- Add 15.25µl autoclaved distilled water, 2.5µl 10x buffer, RAPD, 2.5µl primer use 60s primer ((5´-CAGCAGCAGCAG-3´), dNTP-2.0 µl, 0.25 taqpolymerase.
- Then 22.5µl of reaction mixture was added in a single PCR vial followed by addition of 2.5µl of template DNA to make total reaction volume of25µl.
- After that, PCR vials were put in thermo cycler and allowed for random amplification by using RAPD 60Sprimer.
- Agarose Gel Electrophoresis

After solidify gel carefully take on gel electrophoresis tank, tank are feel with TAE buffer prepare the tank dip electrode then take RAPD sample and add dye then load the sample and run at 150v for 2 hours. After 2 hour clack image.

Results and Discussion- Cellulose bacteria were isolated from 14 camels. Using dung samples. Appropriately diluted samples were spreaded on different media plate like CMC agar plate, starch agar plates, pseudomonas agar plate, wheat straw agar plate, lignin agar plate, Luria bertani agar plate, reinforced clostridia agar plate. Based on the colony morphologies, total 1500 isolates were obtained from dung samples. Total numbers of isolates from the individual. The total number of isolates obtained on CMC media were 400 respectively. LB count and number of isolates from each dung sample and isolates obtained from CMC media from the individual are mentioned.

RAPD profiling of isolates- RAPD of the microbial isolates displaying

EAI>3 (0 day sample) revealed 15 distinct isolates on band pattern analysis. RAPD profiling of isolates from remaining lot is under process. RAPD was performed with Isolates which give clear zone around there colonies. Based on RAPD results identify the genetic variability among the 120 bacteria isolates of camel dung samples. Find 15 bacterial isolates were distinct out of 120 isolates for the help of bionumeric dendrogram.

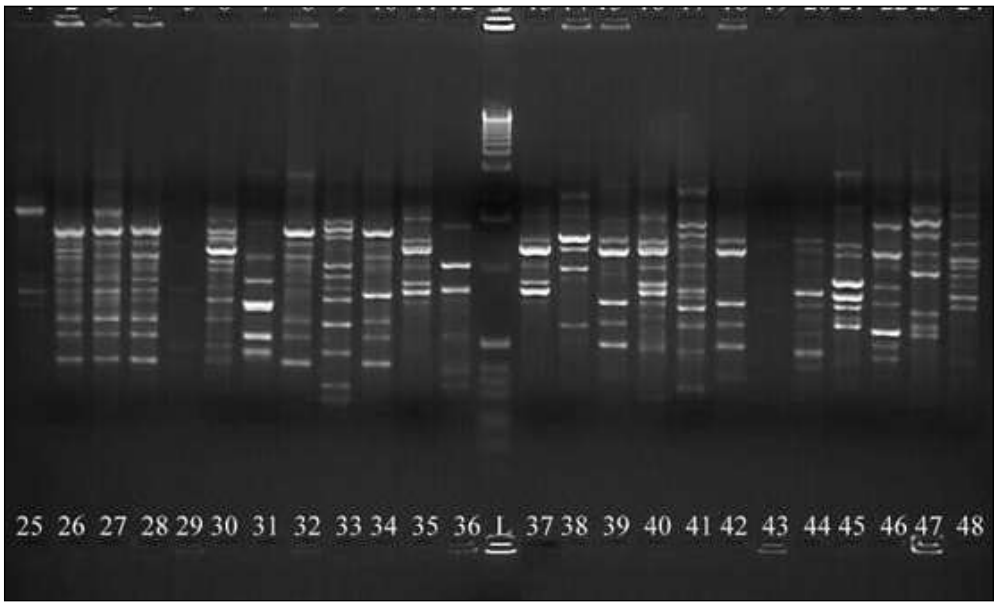

Fig 01: RAPD (random-amplified polymorphic DNA) profiling of 120 isolates from dung sample of camel for sorting out distinct isolates.

Results and Discussion- Cellulose bacteria were isolated from 14 camels. Using dung samples. Appropriately diluted samples were spreaded on different media plate like CMC agar plate, starch agar plates, pseudomonas agar plate, wheat straw agar plate, lignin agar plate, Luria bertani agar plate, reinforced clostridia agar plate. Based on the colony morphologies, total 1500 isolates were obtained from dung samples. Total numbers of isolates from the individual. The total number of isolates obtained on CMC media were 400 respectively. LB count and number of isolates from each dung sample and isolates obtained from CMC media from the individual are mentioned.

Similarly 1982 (48.86%) bacterial colonies showed positive results for amylase production, of these 159 bacterial colonies high EAI. Similar study was done for screening amylase producing bacteria where only 5 (50%) colonies showed positive results for amylase production out of 10 bacterial colonies (Singh, and Kumari 2016). In this study 60 samples were collected from different locations of Paonta sahib. A sum total of 17 (28.33%) pure isolate of different amylase producing bacteria were isolated. (V.Singh et al.2015)

Conclusion- Provided the fourteen camel dung as a sample. then each camel dung 500 mg weight after this . Then serial dalution of each camel dung. Then performed isolation,congo red screened after isolation.Then RAPD the enzyme activity index which was above three. 1500 bacterial Isolates

were extracted from camel dung, 1500 bacterial isolates were then screened,Then 400 positive bacteria were found in 1500 isolates, Out of 400 bacteria,120 were bacteria giving enzyme activity index over three.Then performed an RAPD of 120 bacteria and extracted 15 bacteria distances from it.

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