

National Seminar: Bio Slurry - An Organic Source for Sustainable Agriculture



WHO SHOULD ATTEND

Seminar on Use of Bio-Slurry for Agriculture will be of interest to agricultural scientists, professionals, students, progressive farmers, officials and staff of agriculture & livestock department interested to know latest developments in the field of Biogas and Bio-Slurry (organic fertilizer).

SEMINAR VENUE

The seminar will be held in the library hall of Ayub Agriculture Research Institute (AARI). It is located on Jhang road Faisalabad.

PROGRAMME DETAILS

10:00am to 11:30am	Inaugural Session
11:30am to 12:00am	Tea
12:00pm to 02:00pm	Technical Session
02:00pm to 02:30pm	Lunch

ORGANIZING COMMITTEE

Dr. Abid Mahmood

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NATIONAL SEMINAR BIO SLURRY- AN ORGANIC SOURCE FOR SUSTAINABLE AGRICULTURE



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Organized by:



<http://www.facebook.com/BiogasPDBP>

INTRODUCTION

Pakistan Domestic Biogas Programme is part of the Rural Support Programmes Network which took the initiative in 2009 with financial support of “the Embassy of the Kingdom of the Netherlands” (EKN) to improve the living standard of people in rural area. Under the PDBP, more than 3,200 domestic biogas plants have been installed since 2009. Moreover, 200 tube wells have been switched over to biogas since last year. Now, PDBP has begun construction of 50 & 100 cubic meter biogas plants for electricity generation. PDBP is currently working in 12 district of central Punjab namely Faisalabad, Jhang, Sargodha, Chiniot, Toba Tek Singh, Khushab, Sahiwal, Okara, Pakpattan Nankana, Sheikhpura and Gujranwala.

PDBP's vision is to foster and support the creation of a commercially sustainable domestic biogas sector in Pakistan. To achieve this goal PDBP is equipped with international Quality standards, technical support in the form of International Advisors “SNV and Winrock International”, a unique mechanism of training and quality control, to ensure construction of quality biogas plants. Quality Control Centers has also been set up at each district to provide maintenance requirements to people having biogas plants. These biogas plants also helped to save farmers expense by substituting fuel wood, liquid petroleum gas and replacement of diesel for peter engine.

PDBP has developed 40 Biogas Construction Companies (BCCs), trained over 400 individuals and currently the sector provides employment to more than 1,200 people.

DID YOU KNOW . . . ?

The mixture of dung and water which enters the biogas plant in semi liquid form is called “undigested slurry”. The undigested slurry undergoes a series of anaerobic digestion processes or fermentation in a biogas digester and is converted into combustible gas called “biogas”. The residue of the fermentation comes out as sludge which is known as “digested bio-slurry”.

Bio-Slurry discharged from the digester retains all nutrients originally presented in the feeding material which makes bio-slurry a potent organic fertilizer. Proper application has been proven to provide higher yields than regular manure. It also provides a viable solution to nutrient depletion of many agricultural soils in developing countries.

AARI & PDBP JOINT RESEARCH PROJECT ON USE OF BIO-SLURRY

A collaborative research study was conducted by Soil Chemistry Section, Institute of Soil Chemistry and Environment Sciences, Ayub Agricultural Research Institute Faisalabad and Pakistan Domestic Biogas Programme of Rural Support Programmes Network to evaluate the use of bio-slurry. The RSPN-PDBP provided the financial assistance while Soil Chemistry Section conducted the research experiments at two locations i.e. at Soil Chemistry Section and at farmer's field to evaluate the use of bio-slurry for vegetable production.

The research study was conducted with the following objectives:

1. The use of bio-slurry for vegetable production.
2. Comparison of bio-slurry with conventional use of farm yard manure.
3. Integrated use of chemical fertilizers with bio-slurry to reduce the cost of production and to protect the environment from pollution caused by the chemical fertilizer.



RESULTS OF RESEARCH STUDY

The integration of organic source i.e. Bio-slurry with chemical fertilizer (50:50 on the basis of nitrogen content) gave the similar yield as obtained by the application of recommended dose of chemical fertilizer. The integration of slurry and fertilizer is environment friendly and reduce the cost of production for vegetables.



BENEFITS OF BIO-SLURRY

1. The use of bio-slurry reduced the need for use of chemical fertilizer.
2. It is an excellent soil conditioner, adds humus, and enhances the soil's capacity to retain water.
3. It is pathogen-free. The fermentation of dung in the digester kills organisms causing plant disease.
4. All major plant nutrients (macro & micro) are present in slurry and ready for use as manure.
5. Bio-slurry repels termites and pests that are attracted to raw dung.
6. Being fully fermented, bio-slurry is odorless and does not attract flies.
7. Bio-slurry can be used as fish meal to fish farmers.
8. Bio-slurry reduces weed growth.

PDBP advocates bio-slurry application as organic fertilizer that supports nutrient cycles as well as checks soil degradation and erosion. In addition to that, the biogas process is carbon neutral, thus contributing to the global reduction of greenhouse gas emission for better care of Mother Nature. Utilizing bio-slurry is the next step towards turning waste into benefits.

SEMINAR FOCUS & OBJECTIVES

The overall objective of the seminar is to share the recent knowledge about use and promotion of bio-slurry for crop production.

