BY SPEED POST/FAX
भारतीय मृदा विज्ञान संस्थान (भा०कृ०अनु०प०)
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ICAR-Indian Institute of Soil Science
Nabibagh, Berasia Road, Bhopal–462038 (M.P.)
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Date: 26.02.2015

F. No. 83-2/IISS/RTI/2015

To

Shri Sunil Kumar Raghunathprasad Jayaswal
579, Sachapir Street,
Sharabatwala Chowk
Pune 411001

Sub: Seeking information under RTI Act, 2005 – reg.

Sir,

Please find enclosed herewith information in response to your application under RTI dated 06.02.2015. Further it is informed that the Appellate Authority is Director, IISS, Bhopal and his telephone no. is 0755-2730946.

(R. Elanchezhian)
Principal Scientist & CPIO

Copy to:

Dr. P.P. Biswas
Krishi Anusandhan Bhavan-II,
Indian Council of Agricultural Research,
New Delhi-110012

Zimbra elan@iiss.res.in

From : Dr. M.C. Manna <mcm@iiss.res.in> Thu, Feb 26, 2015 02:51 PM

Subject : <No Subject> 1 attachment

To : Dr. R. Elanchezhian <elan@iiss.res.in>

Dear Sir,
Pl. see attached file of RTI reg.
Thanks
With kind regards,

M.C.Manna

Reply, RTI-Elianchelian.doc
34 KB

RTI Query of Sunilkumar Raghunath Prasad Jaswal

Ref: Application Number 83-2/IISS/RTI/2015 dated 12/2/15

(1) Query-I Subject matter information: Solid waste management

Reply: Municipal Solid Waste Management is the great concen in India. The biggest research unit is National Environmental Engineering Research Institute, (NEERI), Nagpur (contact mail id: director@neeri.res.in) . Most of recent information is available from this institute.. However, at Indian Institute of Soil Science, Bhopal is doing research on bio-waste management generates from agril farm and city waste.

(2) **Query :The period to which information relates**

Reply: : Indian Institute of Soil Science is doing research on biowaste management since last 20 years. However, last 5-8 years Soil Biology Division is working on MSW compost.

(3) **Description of information required:**

(a) **Query: Kindly give details of vermin-composting**

Reply: Indian Institute of Soil Science is working on basic and applied research on biowaste- management for recycling of farm waste, forest litter and city garbage to assess the quality of compost maturity and stability through vermicompost .Some detailed technical information of vermicompost is given below:

VermicompostJng involves stabilization of organic waste through the joint action of earthworms and aerobic microorganisms. Initially, microbial decomposition of biode-gradable organic matter occurs through extra cellular enzymatic activity (primary decomposition). Earthworms feed on partially decomposed matter, consuming five times their body weight of organic matter per day. The ingested food is further decomposed in the gut of the worms, resulting in particle size reduction. The worm cast is a fine, odorless and granular product. This product can serve as a oeganic-fertilizer in agriculture. Vermi compost is a nutrient-rich, natural fertilizer . The earthworm species most often used are *Eudrillus eugineae, Eisenia foetida* or *Lumbricus rubellus.* The methods for large scale vermicomposting are windrow and raised bed or flow through systems.

(b) **Bio-gas from Municipal solid waste**

Reply: It is a process based on anaerobic digestion of organic matter in which microorganisms break down biodegradable material in the absence of oxygen. The process is widely used to treat wastewater sludge and organic wastes because it provides volume and mass reduction of the input material (monsal.com, 2007). It produces methane and carbon dioxide rich biogas suitable for energy production and hence, is a renewable energy source. The nutrient-rich solids left after digestion can be used as a fertilizer. The digestion process begins with bacterial hydrolysis of the input materials in order to break down insoluble organic polymers such as carbohydrates and make them available for other bacteria. Acidogenic bacteria then convert the sugars and amino acids into carbon dioxide, hydrogen, ammonia, and organic acids. Further, the acetogenic bacteria convert the resultant organic acids into acetic acid, along with additional ammonia, hydrogen, and carbon dioxide. Finally, the methanogenic bacteria convert these products to -methane-andoirbon dioxide (waste.nl, 2007). Indian Institute of Soil Science, Bhopal has recently been initiated during 2015.

(c) **Bio-sanitizer process:**

Reply: Such research activity is not going on at IISS, Bhopal. Thus, Information is not available.

(d) **Other emerging New Technology for processing of biodegradable organic waste into manure**

Reply: New technology not yet developed.

(2.) Query: Please give names and address of Research Institutes and sources of Information for solid waste management

Reply: The largest research unit is National Environmental Engineering Research Institute, (NEERI), Nagpur (contact mail id: director@neeri.res.in)

(3) Query: Name of chemicals used as biosanitizer in processing of biodegradable organic waste into manure.

Reply: We have not attempted such research at Indian Institute of Soil Science.