

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

UNSTARRED QUESTION NO:4712
ANSWERED ON:23.04.2013
RESEARCH ON BIOCHAR
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Will the Minister of AGRICULTURE be pleased to state:

- (a) whether the Indian Council of Agricultural Research (ICAR) has conducted research on biochar for its use in agriculture;
- (b) if so, the details thereof; and
- (c) the outcome thereof?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FOOD PROCESSING INDUSTRIES (SHRI TARIQ ANWAR)

(a) Yes, Madam.

(b) The Indian council of Agricultural Research (ICAR) has worked on the production aspect of biochar using the local surplus crop residues as raw feed material with specific target for obtaining the stable char for the purpose of carbon sequestration.

(c) Char can be used to reclaim the acidic soil as the pH value ranged from 9.44 to 9.85 for char obtained at the process temperature from 250 to 450 C. The CO fixation per year was computed as 0.71-0.89 tonne by producing the bio-char from each metric tonne of crop residue and adding the generated char in soil for carbon sequestration. The gain in carbon to soil by adding the bio-char was estimated higher by 91%, 80% and 42% for soybean straw, pigeon pea and cotton stalk, respectively, as compared to the carbon which can be added by incorporating the same quantum of respective raw crop residues to the soil. However, another school of thought advocates that for safe disposal of crop waste, its direct use to increase c-sequestration in soil is a better option in comparison to biochar.