International Journal of Agricultural Sciences
Volume 18 | Issue 1 | January, 2022 | 18-23 ■ ISSN : 0973-130X
DOI:10.15740/HAS/IJAS/18.1/18-23
Visit us : www.researchjournal.co.in

RESEARCH PAPER

Physio-chemical properties of pellets using different feedstocks

Abolee Jagtap* **and** S.R. Kalbande
Department of Unconventional Energy Sources and Electrical Engineering, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.) India
(Email: abolee22493@gmail.com)

Abstract : This study was assumed to analysed the physico-chemical characteristics of seven dissimilar combination of biomass pellets was studied for their storage and combustion properties. The seven different proportion of soybean straw and cotton stalk feedstock T_1(80:20), T_2(70:30), T_3(60:40), T_4(50:50), T_5(40:60), T_6(30:70), T_7(20:80) were used during the experiment. the moisture content of feedstock was found ranges from 7.16 to 9.26 %. The volatile matter of feedstocks was recorded to be 69.48 to 72. 06 % and ash content was noted 8.23 to 13.46 %. The fixed carbon was recorded during the experiment 6.19 to 13.34 %. The maximum bulk density was observed 634 kg/m^3 in combination of T_3 (60:40). The highest and least mean for the heating value of the pellets produced different combinations ranged from 3997 to 4126 kcal/kg. It is concluded that the combination of T_3 (60:40) produces better biomass pellets.

Key Words : Biomass, Densification, Moisture content, Bulk density, Pellets, Renewable

View Point Article : Jagtap, Abolee and Kalbande, S.R. (2022). Field efficacy of selected insecticides against shoot and fruit borer [*Eariusvittella* (Fabricius)] of okra [*Abelmoschus esculentus* (L.) Moench]. *Internat. J. agric. Sci.*, **18** (1) : 18-23, **DOI:10.15740/HAS/IJAS/18.1/18-23.**

Article History : Received : 02.08.2021; **Revised :** 06.09.2021; **Accepted :** 04.10.2021

*** Author for correspondence :**