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"Standardization of Different Pre Sowing Seed Treatments of Panchagavya, Beejamrutha, Jeevamrutha and Neem Oil on Plant Growth, Yield and Yield Attributing Traits of Greengram (*Vigna Radiata L.*) Var. PDM-139 Samrat "

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Abstract

Kharif season (2021- 22) at Central Research Farm, Department of Genetics and Plant Breeding, Naini Agricultural Institute, Sam Higginbottom University of Agriculture,

seed treatments of Panchagavya, Beejamrutha, Jeevamrutha and Neemoil on plant growth, yield and yield attributing traits of Greengram (*Vigna radiata* L.)var.PDM-139 Samrat**.** The experiment was laid out in Randomized Block Design with thirteen treatments including control which were replicated thrice. The treatments are as follows. T_0-Control, (T_1,T_2,T_3 Panchagavya - @ 3% 5% and 7%), (T_4,T_5,T_6 Beejamrutha @ 1%, 3% and 5%), (T_7,T_8,T_9 Neem oil @1% 3% and 5%) and (T_{10},T_{11} and T_{12} Jeevamrutha 3%,5% and 7%) respectively. The experiment results revealed that seeds treated with T_{12} – Jeevamrutha 7% gave better results than other treatments viz. Field emergence (22.46), Plant

(45.33), Number of primary branches per plant (10.60), Seed index (4.10), Number of pods per plant (19.50), Number of Seeds per pod (9.73), Seed yield per plant (3.06g),Seed yield per plot (82.33 gm) and Biological yield per plot (251.4

with treatment T_{12} – Jeevamrutha at 7% for 8 hours attained the best results out of the thirteen treatments evaluated in the study and untreated control (T0) performed least with low vigor and yield amongst the treatments.

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Plan H i i in T a m 12 (50.90) a a a a m a @ 7% an l n mb a c in c r l (40.63). a m r a calli a a i T2 a a c a a a @ 5% (48.36). [7] al b i lan i (191.78 cm), n c b i l (16.15 a-1) an i l (20.07 a-1) c n a lica n a m a @ 600 L a-1 m i i a n a .

Da 50% Fl in l a a in T a m r 12 (32.33) a a a a m a @ 7% an i n mb a c in c r l (40.33). a m r a calli a a i T2 a a an a a a @ 5% (32.33) [8].

N mb P ima b an c i in T a m r 12 (8.73) a a a a m a @ 7% an l n mb a c in c r l (4.16). a m r a calli a a i T2 a a c a a a @ 5% (8.16).

Da Ma i l a a in T a m r 12 (45.33) a a a a m a @ 7% an i n mb a c in c r l (55.33). a m r a calli a a i T2 a a c a a a @ 5% (46.66).

Y

N mb lan i in T a m r 12 (19.53) a a a a m a@ 7% an l n mb a c in c r l (9.33). a m r a calli a a i T2 a ac a a a@ 5% (17.80) [9].

N mb i in T a m r 12 (9.73) a a a a m a @ 7% an l n mb a c in c r l (3.86). a m r a calli a a i T2 a an c a a a @ 5% (7.80).

S i l lan ( ) i in T a m r 12 (4.10) a a a a m a @ 7% an l n mb a c in c r l (2.96). a m r a calli a a i T11 a an c a a a @ 5% (3.83).

S i l l (/m²) i in T a m r 12 (70.40) a a a a m a@ 7% an l n mb a c in c r l (51.03). a m r a calli a a i T3 a an c a a a@ 5% (68.20). [10] al a a lica n an c a a a al n a m a+ m lc in +IFS c m + mic m a i lan i (183.11 cm), l a a a, bi l ical i l an al n mb ll a a (2.73), ain i l (1842 / a) an a in x (0.21) in F x ail [11].

S i l c a (/ a) i in T a m r 12 (823.3) a a a a m a @ 7% an l n mb a c in c r l (600). a m r a calli a a i T2 a a c a a a @ 5% (776.6).

Bi l ical i l i in T a m r 12 (2541 / a) a a a a m a @ 7% an l n mb a c in c r l (2194 / a). a m r a calli a a i T2 a an c a a a @ 5% (2416 / a).

Ha In x i in T a m r 12 (32) a a a a m a @ 7% an l n mb a c in c r l (26.66). a m r a calli a a i 2 a an c a a a @ 5% (31.66) [12].

C

I i c ncl a G n a m a J a m a @ 7% a n b m i abl cin i ri can i i l lan (4.10), i l l (82.33). Fin in a ba n a c n in n a n in P a a (Alla aba) U.P. ail ma b i c n i in c mm n a n.

A

a b m A i D . P a ar K ma Rai an all ac m mb , S Sci nc an T c n l ,D a m r

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