

Influence of integrated nutrient management on yield and economics of Mulberry (*Morus alba* L.)

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ABSTRACT : A field experiment was conducted in farmer's field near College of Sericulture, Chintamani, during late *Kharif* - 2014 to study the effect of integrated nutrient management practice on yield and economics of mulberry. Experiment was laid out in RCBD design with eight treatments replicated thrice. Among different treatments, application of FYM at 20 t/ha + 50% inorganic N + pongamia cake (25% N equivalent) + 75% P & 100% K inorganic + *Azospirillum* + PSB + *Pseudomonas florescence* recorded significantly higher leaf yield (13.42 t/ha) which was on par with FYM at 20 t/ha + 50% inorganic N + pongamia cake (25% N equivalent) + 75% inorganic P & K + *Azospirillum* + PSB + *Pseudomonas florescence* (13.23 t/ha) and FYM at 20 t/ha + 50% inorganic N + pongamia cake (25% N equivalent) + 100% inorganic P & K + *Azospirillum* + PSB (13.07 t/ha). Whereas, significantly lower leaf yield was recorded in FYM at 20 t/ha + recommended dose of NPK (9.03 t/ha). Whereas, higher net returns (30158 Rs./ha) and B:C ratio (1.80) was recorded with FYM at 20 t/ha + 50% inorganic N + pongamia cake (25% N equivalent) + 75% P & 100% K inorganic + *Azospirillum* + PSB + *Pseudomonas florescence*.

Key Words: Mulberry, Farm yard manure and pongamia cake.

Table-1: Leaf yield of mulberry (t/ha) as influenced by integrated nutrient management.

Treatments	At harvest (t/ha)
T ₁ : FYM @ 20 t/ha + RDF (Control)	9.03
T ₂ : FYM @ 20 t/ha + 75% Inorganic N + Pongamia Cake (25% N equivalent) + 100% Inorganic P & K	12.41
T ₃ : FYM @ 20 t/ha + 75% Inorganic N + Pongamia Cake (25% N equivalent) + 100% Inorganic P & K + <i>Azospirillum</i>	12.55
T ₄ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) + 100% Inorganic P & K + <i>Azospirillum</i>	12.63
T ₅ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) + 100% Inorganic P & K + <i>Azospirillum</i> + PSB	13.07
T ₆ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) + 75% P & 100% K Inorganic + <i>Azospirillum</i> + PSB	12.73
T ₇ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) + 75% P & 100% K Inorganic + <i>Azospirillum</i> + PSB + <i>Pseudomonas fluorescens</i>	13.42
T ₈ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) + 75% Inorganic P & K + <i>Azospirillum</i> + PSB + <i>Pseudomonas fluorescens</i>	13.23
S.E m±	0.145
CD (0.05)	0.44

Table-2: Economics of mulberry as influenced by integrated nutrient management.

Treatments	Gross return (Rs./ha)	Total cost of cultivation (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
T ₁ : FYM @ 20 t/ha + RDF (Control)	31629	12187	19442	1.59
T ₂ : FYM @ 20 t/ha + 75% Inorganic N + Pongamia Cake (25% N equivalent) + 100 % Inorganic P & K	43435	17115	26319	1.54
T ₃ : FYM @ 20 t/ha + 75% Inorganic N + Pongamia Cake (25% N equivalent) +100% Inorganic P & K +Azospirillum	43925	17195	26729	1.55
T ₄ : FYM @ 20 t/ha + 50% Inorganic N +Pongamia Cake (25% N equivalent) +100% Inorganic P & K +Azospirillum	44205	17019	27186	1.60
T ₅ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) +100% Inorganic P & K + Azospirillum +PSB	45745	16860	28885	1.71
T ₆ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) +75% P & 100% K Inorganic Azospirillum + PSB	44555	17099	27456	1.61
T ₇ : FYM @20 t/ha +50% Inorganic N +Pongamia Cake (25% N equivalent) +75% P & 100% K Inorganic + Azospirillum + PSB + <i>Pseudomonas florescence</i>	46970	16812	30158	1.80
T ₈ : FYM @ 20 t/ha + 50% Inorganic N + Pongamia Cake (25% N equivalent) +75% Inorganic P&K + Azospirillum + PSB + <i>Pseudomonas florescence</i>	46305	16940	29365	1.70

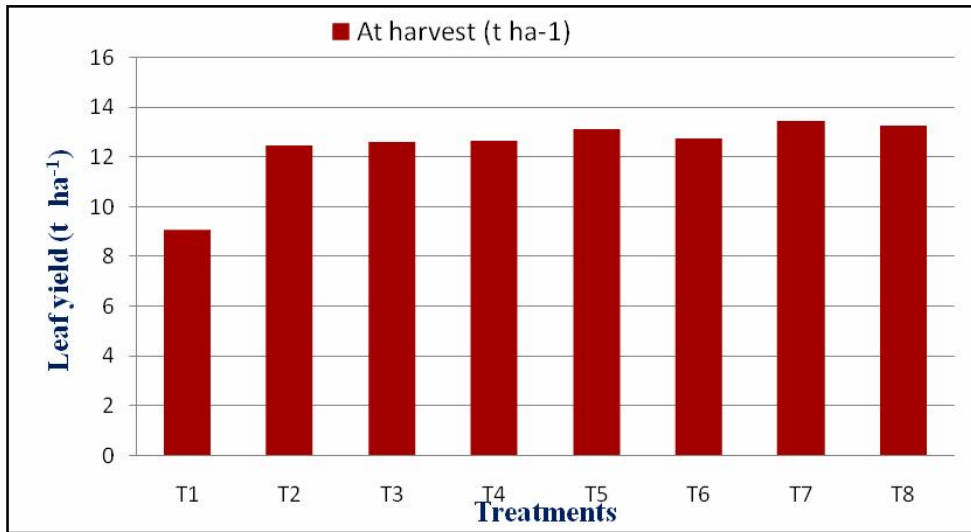


Fig.-1: Yield of mulberry as influenced by integrated nutrient management.

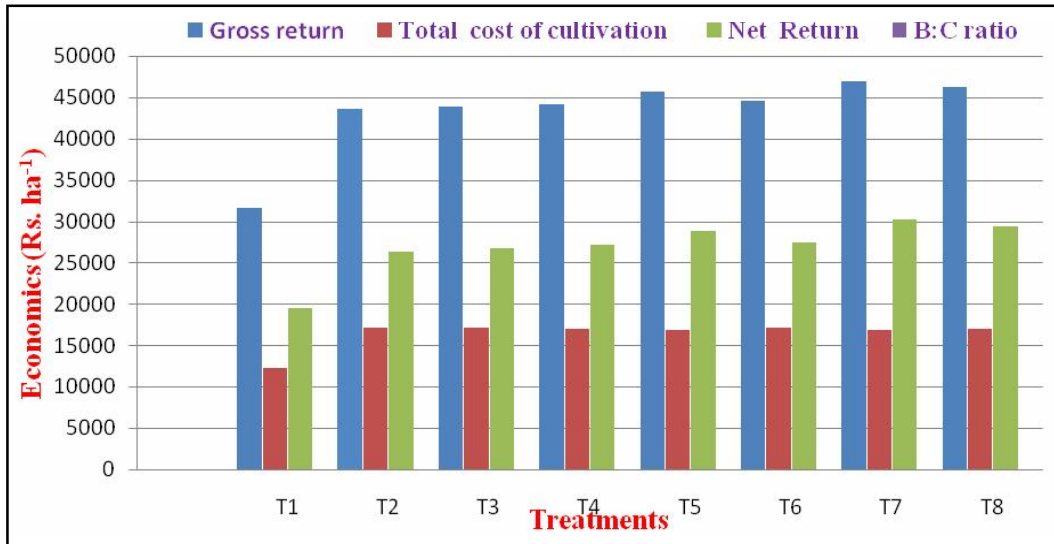


Fig.-2: Economics of mulberry cultivation as influenced by integrated nutrient management.

