

L I S T O F T A B L E S

<u>Table No.</u>	<u>Page No.</u>
1. Medicinal uses of ergot alkaloids.	6
2. Composition of Modified MS medium.	21
3. "In vivo" studies on alkaloid production and tryptophan synthetase activity in <u>Evolvulus alsinoides</u> L.	33
4. Effect of 2,4-D on growth and alkaloid production.	36
5. Effect of NAA on growth and alkaloid production.	37
6. Effect of IAA on growth and alkaloid production.	39
7. Effect of IBA on growth and alkaloid production.	40
8. Effect of kinetin on growth and alkaloid production.	42
9. Effect of GA ₃ on growth and alkaloid production.	43
10. Effect of growth substances on growth and alkaloid production.	45
11. Periodic changes in growth and alkaloid production in callus and suspension cultures.	46
12. Periodic changes in growth and tryptophan synthetase activity in callus and suspension cultures.	49
13. Effect of inoculum size and volume of medium on growth and alkaloid production in suspension cultures	51
14. Effect of various sugars on growth and alkaloid production.	53

Table No.Page No.

15. Periodic changes in growth, alkaloid production and tryptophan synthetase activity in absence of sucrose.	55
16. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 1% sucrose level.	56
17. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2% sucrose level.	57
18. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 4% sucrose level.	59
19. Effect of different Nitrogen levels on growth and alkaloid production.	62
20. Effect of different levels of Microelement and Macroelement salts on growth and alkaloid production.	65
21. Effect of Tween-40 on growth and alkaloid production.	68
22. Effect of Tween-60 on growth and alkaloid production.	69
23. Effect of Tween-80 on growth and alkaloid production.	70
24. Effect of sequential addition of Tween-80 on growth and alkaloid production.	71
25. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM L-tryptophan level.	74
26. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 5 mM L-tryptophan level.	75

Table No.Page No.

27. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 10 mM L-tryptophan level.	76
28. Effect of early and late addition of L-tryptophan (2 mM) on growth and alkaloid production.	78
29. Effect of early and late addition of L-tryptophan (10 mM) on growth and alkaloid production.	79
30. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM 5-methyl DL-tryptophan.	81
31. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM Mevalonic acid level.	83
32. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 5 mM Mevalonic acid level.	84
33. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM methionine level.	86
34. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 1 mM anthranilic acid level.	88
35. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM Anthranilic acid level.	89
36. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 0.5 mM Indole level.	91

Table No.Page No.

37. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM Indole level.	92
38. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM DL-serine.	93
39. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 5 mM DL-serine.	95
40. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 2 mM DL-serine + 0.5 mM Indole level.	96
41. Amino acids during the course of culture.	98
42. Periodic study of Tryptophan, Serine and Methionine quantitatively.	98
43. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 340 mg/l Inorganic phosphate level.	101
44. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 680 mg/l inorganic phosphate level.	102
45. Periodic changes in growth, alkaloid production and tryptophan synthetase activity at 1020 mg/l inorganic phosphate level.	104
46. Effect of L-tryptophan on inorganic phosphate inhibition of alkaloid production.	106

Table No.Page No.

47. Effect of Mevalonic acid on inorganic phosphate inhibition of alkaloid production.	108
48. Effect of 5-methyl tryptophan on inorganic phosphate inhibition of alkaloid production.	110
49. Effect of different levels of calcium, Magnesium and Iron on growth and alkaloid production.	113
50. Changes in growth and alkaloid production in serial subcultures.	115
