

Table 3. Changes of number of tillers under the various cultural method in rice plant

Cultural method	Water management	Seeding method	No. of tiller (Panicle) per m ²				Effectively tiller ratio
			31DAS	64DAS	88DAS	45DAH	
Direct seeding in dry paddy	Soil submerging after emergence	Drilling seeding	186	665	478	419	62.9
		Cultivator rotary after seeding	200	722	462	417	58.7
		Tractor rotary after seeding	195	764	407	396	52.1
		Broadcasting on high ridge	170	741	433	357	48.4
Direct seeding in flooded paddy	Irrigation and drainage after seeding	Drilling seeding	215	660	476	379	57.4
		Cultivator rotary after seeding	215	627	466	379	62.5
		Tractor rotary after seeding	212	596	463	362	65.8
		Broadcasting on high ridge	194	613	377	351	57.6
Direct seeding in flooded paddy	Broadcasting	231	932	597	508	54.8	
Hand transplanting	-	-	460	320	321	70.0	

Note : DAS:Days after seeding DAH:Days after heading

Table 4. Outline of meteorological conditions from every 5 days after seeding

Item	May					June						
	1	2	3	4	5	6	1	2	3	4	5	6
Average Temp (°C)	17.5	17.8	15.4	19.3	18.4	20.0	21.0	19.6	20.3	19.8	22.0	23.1
Precipitation (mm)	0	0	0	21.0	6.0	0	24.2	80.0	34.3	0.3	3.0	14.3

Table 5. The 10a working time in using machines to seed on dry paddy.

Seeding method	Minute
Drilling seeding	20
Cultivator rotary after seeding	32
Tractor rotary after seeding	12
Broadcasting on high ridge	33

* Working time is measured only plowing time

Table 7. Emergence ratio and growth at ripening stage under the various cultural method in rice

Cultural method	Water management	Seeding method	Emergence date	Emergence ratio	Heading date	Panicle length	
						cm	length
Direct seeding in dry paddy	Soil submerging after emergence	Drilling seeding	May 22	72.3	Aug. 24	80	19.0
		Cultivator rotary after seeding	May 22	62.1	Aug. 24	77	17.8
		Tractor rotary after seeding	May 22	63.3	Aug. 24	75	17.9
		Broadcasting on high ridge	May 22	65.7	Aug. 24	82	18.3
Direct seeding in flooded paddy	Irrigation and drainage after seeding	Drilling seeding	May 6	89.2	Aug. 20	80	19.4
		Cultivator rotary after seeding	May 9	74.5	Aug. 20	77	19.2
		Tractor rotary after seeding	May 9	74.8	Aug. 20	74	19.3
		Broadcasting on high ridge	May 9	73.9	Aug. 20	78	19.3
Direct seeding in flooded paddy	Broadcasting	May 5	84.2	Aug. 20	86	18.1	
Hand transplanting	-	-	-	-	Aug. 20	82	20.3

Table 8. Change of yield components and yield under the various cultural method in rice plant

Cultural method	Water management	Seeding method	No. of spikelets per plant	No. of spikelets per m ²	Filled grain ratio	Yield grain weight	Yield index
Direct seeding in dry paddy	Soil submerging after emergence	Drilling seeding	69	28.4	85.4	24.1	504
		Cultivator rotary after seeding	65	27.2	85.5	24.0	463
		Tractor rotary after seeding	66	26.2	85.7	24.1	469
		Broadcasting on high ridge	76	27.2	84.2	24.0	468
Direct seeding in flooded paddy	Irrigation and drainage after seeding	Drilling seeding	77	29.1	90.0	24.6	534
		Cultivator rotary after seeding	73	27.5	90.6	24.5	500
		Tractor rotary after seeding	72	28.1	91.9	24.4	505
		Broadcasting on high ridge	73	28.0	88.7	24.5	515
Direct seeding in flooded paddy	Broadcasting	61	30.8	69.7	23.5	414	
Hand transplanting	-	96	30.8	90.5	24.5	503	