<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Table 1.1 Function of micronutrients in plants (Modified and adapted from Uchida 2000)</td>
</tr>
<tr>
<td>2</td>
<td>Table 2.1 Plant crop response to PGPR inoculation under different experimental conditions</td>
</tr>
<tr>
<td>3</td>
<td>Table 2.2 Change in pH due to solubilization of tricalcium phosphate up to 21st day after inoculation</td>
</tr>
<tr>
<td>4</td>
<td>Table 2.3 HCN productions by the selected PGPR (+ low; ++ medium; +++ good; nd not detected)</td>
</tr>
<tr>
<td>5</td>
<td>Table 2.4 Biochemical characteristics of selected strains</td>
</tr>
<tr>
<td>6</td>
<td>Table 2.5 Carbohydrate utilization profile of selected strains (+/+ acid/gas both positive; -/- acid/gas both negative)</td>
</tr>
<tr>
<td>7</td>
<td>Table 2.6 Alignment view using combination of NCBI GenBank databases for MSD</td>
</tr>
<tr>
<td>8</td>
<td>Table 2.7 Distance matrix table generated using sample MSD</td>
</tr>
<tr>
<td>9</td>
<td>Table 2.8 Daily germination count of the Jatropha seeds and calculation of germination parameters. DT (Daily total); CT (Cumulative total); CG % (Cumulative germination percent); C (Control); T (Treatments); r (Replicates)</td>
</tr>
<tr>
<td>10</td>
<td>Table 2.9 Germination parameter study shown by different treatments in comparison with the control. These parameters were calculated after the germination count up to 22nd day after the seeds sown in the pot</td>
</tr>
<tr>
<td>11</td>
<td>Table 3.1 Change in pH due to solubilization of tricalcium phosphate up to 21st day after inoculation</td>
</tr>
<tr>
<td>12</td>
<td>Table 3.2 HCN productions by the co-inoculated PGPR (+ low; ++ medium; +++ good; nd not detected)</td>
</tr>
<tr>
<td>13</td>
<td>Table 3.3 Germination parameter study shown by different treatments in comparison with the control. These parameters were calculated after the germination count up to 28th day after the seeds sown in the pot</td>
</tr>
<tr>
<td>14</td>
<td>Table 3.4 Effect of combined application of different treatments on vegetative growth of Jatropha curcas after 30days</td>
</tr>
</tbody>
</table>
Table 3.5 Effect of combined application of different treatments on vegetative growth of *Jatropha curcas* after 60 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 60 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 3.6 Effect of combined application of different treatments on vegetative growth of *Jatropha curcas* after 90 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 90 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 3.7 (A) Soil physico-chemical properties before any treatments (B) Effect of combined application of different treatments on soil physico-chemical properties after 30 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 30 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 3.8 Effect of combined application of different treatments on soil physico-chemical properties after 60 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 60 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 3.9 Effect of combined application of different treatments on soil physico-chemical properties after 90 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 90 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 3.10 Effect of nutrient management on nutrient uptake of *Jatropha curcas* after 30 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 30 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 3.11 Effect of nutrient management on nutrient uptake of *Jatropha curcas* after 60 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 60 DAS, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)
Table 3.12 Effect of nutrient management on nutrient uptake of *Jatropha curcas* after 90 days
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 90 DAS; * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.1 Germination parameter study shown by different treatments in comparison with the control under salinity stress. These parameters were calculated after the germination count up to 28th day after the seeds sown in the pot

Table 4.2 Influence of different soil ameliorants and PGPR on vegetative growth of *Jatropha curcas* after six months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 6 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.3 Influence of different soil ameliorants and PGPR on vegetative growth of *Jatropha curcas* after 12 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 12 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.4 Influence of different soil ameliorants and PGPR on vegetative growth of *Jatropha curcas* after 18 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 18 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.5 Influence of different soil ameliorants and PGPR on vegetative growth of *Jatropha curcas* after 24 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 24 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.6 Influence of different soil ameliorants and PGPR on bulk density and particle density of soil

Table 4.7 Influence of different soil ameliorants and PGPR on soil physico-chemical properties after 6 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 6 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.8 Influence of different soil ameliorants and PGPR on soil physico-
Table 4.9 Influence of different soil ameliorants and PGPR on soil physico-chemical properties after 18 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 18 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.10 Influence of different soil ameliorants and PGPR on soil physico-chemical properties after 24 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 24 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.11 Effect of soil ameliorants and PGPR on nutrient uptake of *Jatropha curcas* after six months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at six months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.12 Effect of soil ameliorants and PGPR on nutrient uptake of *Jatropha curcas* after 12 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 12 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.13 Effect of soil ameliorants and PGPR on nutrient uptake of *Jatropha curcas* after 18 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 18 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 4.14 Effect of soil ameliorants and PGPR on nutrient uptake of *Jatropha curcas* after 24 months of plantation
Result shows means of three replicate ± SE (standard error), significance test by using ANOVA software at 24 months, * Significant at 5%; ** Significant at 1%; ns, non-significant as compared to control (ANOVA)

Table 5.1 Influence of different PGPR treatments on vegetative parameters of *Jatropha* plant in presence of 300 mM NaCl. C -ve control plants without added stress and PGPR; C +ve control plants with added salinity but without PGPR
Values are the mean of triplicates. ns nonsignificant * Significant at 5% LSD; ** significant at 1% level of LSD as compared to control
Table 5.2 Influence of PGPR on nutrient status of soil after 60 days of treatment under 300 mM NaCl stress

Table 5.3 Peptide mass fingerprinting of *Pseudomonas pseudoalcaligenes* (MSC) newly induced protein upon 500 mM osmotic shock at late logarithmic phase of growth