## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure No.</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Berry uptake of NPK in Panniyur-1 variety of bush pepper</td>
<td>74</td>
</tr>
<tr>
<td>2</td>
<td>Berry uptake of NPK in Karimunda variety of bush pepper</td>
<td>74</td>
</tr>
<tr>
<td>3</td>
<td>Effect of organic fertilizers on yield of black pepper (Green house experiment)</td>
<td>77</td>
</tr>
<tr>
<td>4</td>
<td>Effect of organic fertilizers on piperine content of black pepper varieties (Green house experiment)</td>
<td>77</td>
</tr>
<tr>
<td>5</td>
<td>Effect of organic fertilizers on oleoresin content of black pepper varieties (Green house experiment)</td>
<td>77</td>
</tr>
<tr>
<td>6</td>
<td>Effect of organic fertilizers on yield of black pepper (Field experiment)</td>
<td>94</td>
</tr>
<tr>
<td>7</td>
<td>Effect of organic fertilizers on soil organic fractions (Green house experiment)</td>
<td>94</td>
</tr>
<tr>
<td>8</td>
<td>Effect of organic fertilizers on soil organic fractions (Field experiment)</td>
<td>94</td>
</tr>
<tr>
<td>9</td>
<td>Effect of organic fertilizers on enzyme activity in the pepper growing soil of Wayanad at 60\textsuperscript{th} day</td>
<td>103</td>
</tr>
<tr>
<td>10</td>
<td>Effect of organic fertilizers on enzyme activity in the pepper growing soil of Peruvannamuzhi at 60\textsuperscript{th} day</td>
<td>103</td>
</tr>
<tr>
<td>11</td>
<td>Adsorption Isotherm of P in presence of organic sources in pepper growing soil of Pulpally</td>
<td>105</td>
</tr>
<tr>
<td>12</td>
<td>Two surface Langmuir Adsorption Isotherm for P-adsorption in pepper growing soil of Pulpally</td>
<td>107</td>
</tr>
<tr>
<td>13</td>
<td>The relationship between P adsorbed and soil available Fe, Al and organic carbon in pepper growing soil of Pulpally</td>
<td>108</td>
</tr>
<tr>
<td>14</td>
<td>Adsorption isotherm of P in presence of organic sources in pepper growing soil of Peruvannamuzhi</td>
<td>110</td>
</tr>
<tr>
<td>15</td>
<td>Langmuir Adsorption Isotherm for P-adsorption in pepper growing soil of Peruvannamuzhi</td>
<td>111</td>
</tr>
<tr>
<td>16</td>
<td>The relationship between P adsorbed and soil available Fe and Al in pepper growing soil of Peruvannamuzhi</td>
<td>113</td>
</tr>
<tr>
<td>Plate No.</td>
<td>Title</td>
<td>Page No.</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>1</td>
<td>Bush black pepper (cv. Panniyur-1 and Karimunda) cultivation in green house with mist irrigation</td>
<td>43</td>
</tr>
<tr>
<td>2</td>
<td>Earthworm species <em>Eudrilus eugeniae</em> used for composting</td>
<td>44</td>
</tr>
<tr>
<td>3</td>
<td>Vermicomposting in progress</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>Vermiwash collection used for spraying treatment</td>
<td>44</td>
</tr>
<tr>
<td>5</td>
<td>General view of the field experiment</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>Effect of FYM on Karimunda variety of bush black pepper in comparison with Check</td>
<td>48</td>
</tr>
<tr>
<td>7</td>
<td>Effect of NPK on Karimunda variety of bush black pepper in comparison with check</td>
<td>48</td>
</tr>
<tr>
<td>8</td>
<td>Effect of vermicompost on Karimunda variety of bush black pepper in comparison with neem cake</td>
<td>48</td>
</tr>
<tr>
<td>9</td>
<td>Effect of leaf compost on Panniyur-1 variety of bush black pepper in comparison with check</td>
<td>50</td>
</tr>
<tr>
<td>10</td>
<td>Effect of neem cake on Panniyur-1 variety of bush black pepper in comparison with check</td>
<td>50</td>
</tr>
<tr>
<td>11</td>
<td>Effect of treatments on the development of spikes and berry in black pepper</td>
<td>50</td>
</tr>
</tbody>
</table>