List of Tables:

2.1.1. Seasonal dynamics of *D. armigera* (Olivier) on Ranjit and Kala birae varieties in Amon seasons in Dargakona during 2003 – 04. 12
2.1.2. Seasonal dynamics of *D. armigera* (Olivier) on Ranjit and Kala birae varieties in Amon seasons in Katigarah during 2003 – 04. 13
2.1.3. Seasonal dynamics of *D. armigera* (Olivier) on Ranjit and Kala birae varieties in Amon seasons in Sonai during 2003 – 04. 15
2.1.4. Seasonal dynamics of *D. armigera* (Olivier) on Ranjit and Kala birae varieties in Amon seasons in Udharbond during 2003 – 04. 16
2.1.5. Seasonal dynamics of *D. armigera* (Olivier) on Bansful and BR-19 varieties in Boro seasons in Dargakona during 2003 – 05. 19
2.1.6. Seasonal dynamics of *D. armigera* (Olivier) on Bansful and BR-19 varieties in Boro seasons in Katigarah during 2003 – 05. 20
2.1.7. Seasonal dynamics of *D. armigera* (Olivier) on Bansful and BR-19 varieties in Boro seasons in Sonai during 2003 – 05. 21
2.1.8. Seasonal dynamics of *D. armigera* (Olivier) on Bansful and BR-19 varieties in Boro seasons in Udharbond during 2003 – 05. 23
2.1.9. Seasonal dynamics of *D. armigera* (Olivier) on Krishna and Bahadur varieties in Aus seasons in Dargakona during 2004 – 05. 25
2.1.10. Seasonal dynamics of *D. armigera* (Olivier) on Krishna and Bahadur varieties in Aus seasons in Katigarah during 2003 – 05. 26
2.1.11. Seasonal dynamics of *D. armigera* (Olivier) on Krishna and Bahadur varieties in Aus seasons in Sonai during 2004 – 05. 27
2.1.12. Seasonal dynamics of *D. armigera* (Olivier) on Krishna and Bahadur varieties in Aus seasons in Udharbond during 2004 – 05. 28
2.2.1. Screening of some Amon rice cultivars against *D. armigera* (O.) in pot experiments during 2004. 40
2.2.2. Screening of some Boro rice cultivars against *D. armigera* (O.) in pot experiments during 2004. 41
2.2.3. Screening of some Aus rice cultivars against *D. armigera* (O.) in pot experiments during 2004-05. 42
2.2.4. Percent (%) damage in Local and High Yielding varieties of rice by *D. armigera* O. in three seasons during 04 – 05. 44
2.2.5. List of alternative host plants of Rice hispa (*D. armigera* O.) 46
2.2.6. Screening of some Alternative host plants against *D. armigera* (O.) in pot experiments in Amon crop season during 2004. 47

2.2.7. Screening of some Alternative host plants against *D. armigera* (O.) in pot experiments in Boro crop season during 2004. 49

2.2.8. Screening of some Alternative host plants against *D. armigera* (O.) in pot experiments in Aus crop season during 2004-05. 50

2.3.1. Diurnal activity of *D. armigera* (O.) during different crop seasons of 2004-05 in Dargakona. 58


3.1.2. Body weight, length, width and head capsule width of *D. armigera* adults in different crop seasons during 2004-05. 64

3.2.1. Biology of *D. armigera* (O) in three crop seasons during 2004 – 05. 71

3.2.2. Length and width of egg, larvae and pupae of *D. armigera* in different crop seasons during 2004-05. 72

4.1.1 : Bio-efficacy of some chemical insecticides against *D. armigera* O. during 2004 – 05. 83

4.1.2. Cost Benefit analysis in terms of yield with respect to different chemical insecticides (single spray) against *D. armigera* on Ranjit rice cultivar (2004-05). 88

4.2.1 : Bio-efficacy of some Bio-pesticides against *D. armigera* O. during 2004 –05. 92

4.2.2. Cost Benefit analysis in terms of yield with respect to different bio-pesticides (single spray) against *D. armigera* on Ranjit rice cultivar (2004-05). 97

4.3.1: Bio-efficacy of *H. antidysenterica*, *M. scandens*, *C. odorata* and *D. stramonium* leaf extracts against *D. armigera* (O). during 2004- 05. 104

5.1. Profile of randomly selected farmer respondents in four sites of Cachar district. 119

5.2. Frequency and timing of insecticide spray for the control of *D. armigera*. 120

5.3. Farmers’ attribute towards insect management and insecticides. 121

5.4. Traditional Pest Management Practices of *D. armigera*. 122