Appendix C
This is an Artificial Intelligence based Expert System for Integrated Pest Management in Tea. The pests common and causing major damages in tea have been considered.

Pest already identified. Just Advice please!

Leaf Appearance:
- Dry up
- Leathery
- Dusted as white particles
- Curved downwards
- Curved upwards
- Tied up together
- Rolled
- Paired one above another
- Crinkled, curled
- Deformed
- Margin recurved and brown
- Withered
- Normal

Leaf Eaten:
- Irregular perforation
- Bites of the edges
- Eaten away from margin
- Epidermal eaten away
- Eaten away partially
- Skeletonized leaves
- No eaten mark
Stem Symptoms

- Stem with
  - Small hole
  - Spiral run
  - Bark damage on patches
  - Portion covered with silken web
  - Finsh oval pellets on ground
  - Pin head holes
  - Swelling
  - Bark damage with calitis growth
  - Group of insects on stem
  - None of the above

From this display you can proceed to Advice Level-1 for possible insect pest identification.
Tea Pest Control Advices (A part of Tea)

Crop Status:
- Flushing Period
- Non-flushing period

Current Month:
- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December
- January

Weed Status:
- High
- Present
- Free

Shade Status:
- Dense
- Adequate
- Poor

Pruning Status:
- Unpruned
- Skilled
- Pruned

Drainage:
- Good
- Adequate
- Poor

Nature of Attack:
- Severe
- Medium
- Low

Advice Window

Mitecide Recommendation:

Pesticide Recommendation:

Endosulphan, 1:200 LV / 1:400 HV
Chlorpyrifos, 1:200 LV / 1:400 HV
Quinalphos, 1:200 LV / 1:400 HV
Deltamethrin/Cypermethrin 1:2000 LV
Tea is one of the major crops in India. It contributes to the national economy and as well as local economy to a great extent. There are so many factors which constraints the growth of tea industry. Tea plant diseases are one of them and obviously they should be controlled properly.

**Goals of this system:**
The goals of this system is to control the disease of tea plants. The system has been designed in two phases:
1. Proper identification of the disease and
2. Suggesting control measures.

**Developed by:**
Indrajit Ghosh and
Dr. R.K. Samanta.