**Table 1: Similarities and differences between HDV and plant viroids**

|  |  |  |
| --- | --- | --- |
| **HDV****(1700 nt)** | **Pospiviroidae****(200-400 nt)** | **Avsunviroidae****(200-400 nt)** |
| Circular ssRNA  | Circular ssRNA  | Circular ssRNA  |
| Extensive intramolecular base pairing | Extensive intramolecular base pairing  | Extensive intramolecular base pairing  |
| A DNA-directed RNA polymerase makes both plus and minus strands | A DNA-directed RNA polymerase makes both plus and minus strands  | A DNA-directed RNA polymerase makes both plus and minus strands |
| Encodes for protein | No proteins encoded | No proteins encoded |
| Virion maturation depends on a helper virus | Replication does not depend on the presence of a helper virus  | Replication does not depend on the presence of a helper virus  |
| Symmetric rolling circle RNA replication | Asymmetric rolling circle RNA replication | Symmetric rolling circle RNA replication |
| Replicates in the nucleus | Replicates in the nucleus | Replicates in chloroplasts |
| Ribozyme activity | No ribozyme activity | Ribozyme activity |