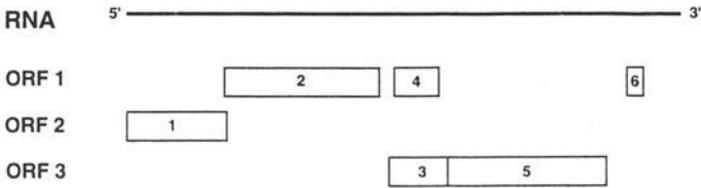


## Sub-group I e.g. BYDV-PAV



## Subgroup II e.g. PLRV

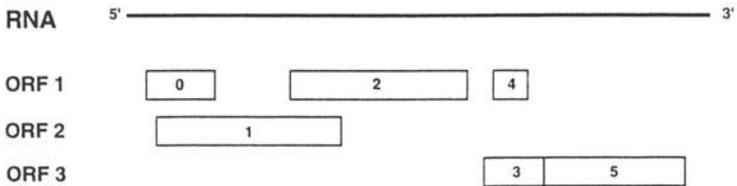


Fig. 1. The RNA genomes of Subgroup I and Subgroup II luteoviruses. The genomic, positive-sense RNAs are shown, together with the open reading frames (ORFs) for the encoded proteins. ORF 3 encodes a 17–22 kDa coat protein. ORF 3 is separated from ORF 5 by an amber termination codon, and a readthrough protein can be observed in plants. The readthrough portion encoded by ORF 5 is 50–56 kDa.

2. Waring (New Hartford, CT) 3-speed heavy-duty blender model CB6, having a 4-L stainless steel container.
3. Phosphate resuspension buffer: 0.1M potassium phosphate buffer, pH 7.0 (approx two parts 0.1M  $K_2HPO_4$  [dibasic] and one part 0.1M  $KH_2PO_4$  [monobasic]).
4. Sucrose 20% (w/v) in 0.1M phosphate resuspension buffer, pH 7.0.
5. A 2:1 mixture of chloroform:*n*-amyl alcohol.
6. Polyethylene glycol (PEG), average mol wt 8000; sodium chloride.
7. Sucrose pad: 30% (w/v) sucrose in 0.1M phosphate resuspension buffer, pH 7.0.
8. Leaf or root tissue (oat usually preferred) cut into 2–5 pieces and frozen.

## 2.2. PLRV

1. 0.1M Trisodium citrate, pH 6.0, containing 0.5% 2-mercaptoethanol (v/v) and 5% Celluclast (v/v, 1500 NCUg-1, Novo Industri, A/S Copenhagen, Denmark). The trisodium citrate solution can be made up in advance, but the other components should be added only when ready to use. **Caution:** 2-mercaptoethanol is toxic and has an unpleasant odor. Wear gloves and use in a fume cupboard. Make up only the amount required.