Photo-Plates
PLATE-I

Photomicrographs of cambial strips of *C. pentandra*

A: T.L.S. cambium showing terminal merger of rays (unlabelled arrow) at 20X.

B, E: T.L.S. active cambium at 40X.

C: T.L.S. cambium showing pseudo-transverse division (unlabelled arrow) at 40X.

D: T.L.S. cambium showing lateral merger of rays (unlabelled arrow) 10X.

F: T.L.S. dormant cambium showing laterally cut new ray initial (unlabelled arrow) at 40X.
PLATE-II

Photomicrographs of cambial strips of *C. pentandra*

A: T.L.S. cambium showing terminal merger of rays (unlabelled arrow) at 10X.

B: T.L.S. cambium showing splitting of rays (unlabelled arrows) at 10X.

C: T.L.S. cambium showing terminal fusion and splitting of rays (unlabelled arrows) at 10X.

D: T.L.S. cambium showing formation of rays (unlabelled arrows) at 10X.
PLATE-III

Photomicrographs of cambial strips of *F. glomerata*

A: T.L.S. active cambium at 10X.

B: T.L.S. cambium showing splitting of rays (unlabelled arrows) at 10X.

C: T.L.S. cambium showing transverse septation and terminal segmentation of fusiform initial and newly produced ray (unlabelled arrows) at 40X.

D: T.L.S. cambium showing transverse segmentation of fusiform initials and newly produced ray (unlabelled arrows) at 10X.

E: T.L.S. cambium showing pseudo-transverse division (unlabelled arrows) at 40X.

F: T.L.S. dormant cambium showing pseudo-transverse division (unlabelled arrow) at 40X.
PLATE-IV

Photomicrographs of cambial strips of *F. glomerata*

A: T.L.S. dormant cambium showing pseudo-transverse division and terminal segmentation of fusiform initials (unlabelled arrows) at 40X.

B: T.L.S. cambium showing transverse wall formation in newly produced ray (unlabelled arrow) at 40X.

C, D: T.L.S. cambium showing pseudo-transverse division and formation of laterally cut ray initial cell (unlabelled arrows) at 40X.

E: T.L.S. cambium showing pseudo-transverse division and lateral fusion of rays (unlabelled arrows) at 40X.

F: T.L.S. cambium showing pseudo-transverse division and laterally cut lens shaped ray initial cell (unlabelled arrows) at 40X.
PLATE-V

Photomicrographs of cambial strips of *M. oleifera*

A: T.L.S. active cambium showing pseudo-transverse division (unlabelled arrow) at 10X.

B: T.L.S. cambium showing pseudo-transverse division (unlabelled arrows) at 10X.

C: T.L.S. cambium showing pseudo-transverse division (unlabelled arrows) at 40X.

D: T.L.S. dormant cambium at 10X.

E & F: same as D at 40X.
PLATE-VI

Photomicrographs of cambial strips of *M. oleifera*

A: T.L.S. cambium showing lateral & terminal merger of rays (unlabelled arrows) at 10X.

B: T.L.S. cambium showing pseudo-transverse division and formation of ray initials (unlabelled arrows) at 40X.

C: T.L.S. cambium showing lateral fusion of ray initials (unlabelled arrow) at 40X.

D: T.L.S. cambium showing laterally cut lens shaped ray initial cell (unlabelled arrow) at 40X.
PLATE-VII

Photomicrographs of wood samples of *C. pentandra*

A: T.L.S. showing arrangement of vessel element and overcrowded reduced bordered pits on their lateral wall (unlabelled arrows) at 10X.

B: T.L.S. showing scalariform pits on their lateral walls of vessel elements (unlabelled arrow) at 10X.

C: T.L.S. showing vessels, xylem rays, sclerenchyma and parenchyma at 10X.

D: T.L.S. showing overcrowded reduced bordered pits on lateral walls of vessel elements at 40X.
PLATE-VIII

Photomicrographs of wood samples of *C. pentandra*

A: T.S. showing vessels and other components (unlabelled arrows) at 40X.

B: T.S. showing tylosed vessels (unlabelled arrows) at 40X.

C: T.L.S. showing pores at 40X.

D: R.L.S. showing homogenous rays at 10X.
PLATE-IX

Photomicrographs of wood samples of *F. glomerata*

A: T.L.S. showing arrangement of vessels (unlabelled arrow) at 10X.

B, D: T.L.S. showing vessels having overcrowded reduced bordered pits (unlabelled arrows) at 40X.

C: T.L.S. showing different xylem components at 10X.
PLATE-X

Photomicrographs of wood samples of *F. glomerata*

A: T.L.S. showing rays and sclerenchyma (unlabelled arrows) at 10X.

B: T.S. showing tylosed vessels, multiple pores, rays and sclerenchyma (unlabelled arrows) at 10X.

C: T.L.S. showing sclerenchyma fibres (unlabelled arrows) at 10X.

D: R.L.S. showing homogenous rays at 10X.
PLATE-XI

Photomicrographs of wood samples of *M. oleifera*

A: T.L.S. showing arrangement of vessels and rays (unlabelled arrows) at 10X.

B: T.L.S. showing scalariform pits on lateral walls of vessels (unlabelled arrow) at 40X.

C: T.L.S. showing vessels having overcrowded reduced bordered pits (unlabelled arrow) at 40X.

D: T.S. showing solitary pores (unlabelled arrows) at 10X.

E: T.S. showing multiple pores at 10X.

F: R.L.S. showing homogenous rays at 10X.
PLATE-XII

Photomicrographs of bark samples of *C. pentandra*

A: T.L.S. showing sieve tubes and sieve plates (unlabelled arrows) at 10X.

B: T.L.S. showing callose plugs on the end walls of sieve tube members and lateral sieve areas (unlabelled arrows) at 40X.

C: T.S. showing sclerenchyma and sieve plate (unlabelled arrows) at 10X.

D: T.S. showing crushed sieve elements, sieve plate, and sieve tube with companion cell (unlabelled arrows) at 40 X.
PLATE-XIII

Photomicrographs of bark samples of *F. glomerata*

**A:** T.L.S. showing sieve tubes and sieve plates (unlabelled arrows) at 10X.

**B:** T.L.S. showing callose plugs on sieve plate and lateral sieve areas (unlabelled arrows) at 40X.

**C:** T.S. showing sieve tube with companion cell and sieve plate (unlabelled arrows) at 40X.

**D:** T.S. showing crushed sieve elements, sieve plate and companion cell (unlabelled arrows) at 40X.
PLATE-XIV

Photomicrographs of bark samples of *M. oleifera*

A: T.L.S. showing arrangement of sieve tube members, sieve tubes with sieve plates (unlabelled arrows) at 10X.

B: T.L.S. showing sieve plate and lateral sieve areas (unlabelled arrows) at 40X.

C: T.S. showing sieve tube with companion cell and sieve plate (unlabelled arrows) at 10X.

D: T.S. showing sieve tubes without companion cell and ray (unlabelled arrows) at 40X.
PLATE-XV

Photomicrographs of cambial zone and vascular derivatives of C. pentandra

A: T.S. showing sclerenchyma (unlabelled arrow) new phloem (NP), cambium (C) and new xylem (NX) at 4X.

B: T.S. showing sclerenchyma, partly crushed sieve elements (unlabelled arrows) and new xylem (NX) at 10X.

C: T.S. showing sieve tube (unlabelled arrows) and new xylem (NX) at 10X.

D: T.S. showing sclerenchyma, completely crushed sieve elements (unlabelled arrows) at 40X.
PLATE-XVI

Photomicrographs of cambial zone and vascular derivatives of *F. glomerata*

A: T.S. showing phloem rays (unlabelled arrow) and various components at 4X.

B: T.S. showing xylem fibres (unlabelled arrow), non-conducting phloem (NCP), conducting phloem (CP), cambial zone (C) and new xylem (NX) at 10X.

C: T.S. showing phloem (P), cambial zone (C) and new xylem (NX) at 10X.

D: T.S. showing phloem rays (unlabelled arrow) at 10X.
PLATE-XVI
PLATE-XVII

Photomicrographs of cambial zone and vascular derivatives of *M. oleifera*

A: T.S. showing sclerenchyma (unlabelled arrow) new phloem (NP) at 4X.

B: T.S. showing non-conducting phloem (NCP), conducting phloem (CP),
cambial zone (C) and new xylem (NX) at 10X.

C: T.S. showing phloem (P) and cambium (C) at 10X.

D: T.S. showing conducting phloem (CP), cambial zone (C) and new xylem
(NX) at 10X.
PLATE-XVIII

Photomicrographs of cambial zone of C. pentandra

A: T.S. showing callose pads (unlabelled arrows) and cambial zone (C) at 40X.

B: T.S. showing cambial zone (C) at 40X.

C: T.S. showing sieve tube (unlabelled arrows) and cambial zone (C) at 40X.

D: T.S. showing sieve tube with companion cell (unlabelled arrows) and cambial zone (C) at 40X.
PLATE-XIX

Photomicrographs of cambial zone of *F. glomerata*

A: T.S. showing non-conducting phloem (NCP), conducting phloem (CP), cambial zone (C) and new xylem (NX) at 10X.

B: T.S. showing new phloem (NP), cambial zone (C) and new xylem (NX) at 40X.

C: T.S. showing phloem (P), cambial zone (C) and new xylem (NX) at 40X.

D: T.S. showing phloem (P) and cambial zone (C) at 40X.
PLATE-XX

Photomicrographs of cambial zone of *M. oleifera*

A: T.S. showing cambial zone (C) at 40X.

B: T.S. showing sieve elements (unlabelled arrow), cambial zone (C) and new xylem (NX) at 40X.

C: T.S. showing sieve tube with companion cell (unlabelled arrows) and cambial zone (C) at 40X.

D: T.S. showing cambial zone (C) at 40X.