

Verbena officinalis L. (Verbenaceae)

Nutlets formed in four, inside the carpels.

General shape: cylindrical oblong in outline.

Normal size: 1.2-2.0 L x 0.5-0.8 W x 0.6-0.8 D mm

Color: grayish white, dorsal side (reddish) brown.

Texture: dorsal side has ribs, surface between ribs is wrinkled; ventral side is covered with a mattress of white microgranules (easily seen under strong magnification).

Distinguishing features: the dorsal side is convex, exhibits some irregular ribs, anastomosed over the apex. The ventral face is slightly keeled. The small and light hilum is at the apex.

Embryo: The straight embryo fills in almost the whole of the inside of the seed. There is only a thin layer of nutritive storage tissue around the embryo.



Normal seeds of *Verbena officinalis*



Seeds under magnification