Fiber properties of eleven different coniferous cones, growing naturally in Turkey, were studied. Axis and scales of cones were analyzed separately. The slenderness, flexibility, and Runkel ratios were derived from measured fiber dimensions. Fiber length and fiber width of cones were between 0.93 mm and 1.87 mm, 16.6 µm and 32.2 µm, respectively. The longest fiber length was determined with 1.87 mm in Pinus pinea cone axis fibers. Also, the widest fiber (32.2 µm) and the widest lumen (20.0 µm) were found in Abies equi-trojani cone scale fibers. The thickest cell wall (8.40 µm) were found in Pinus sylvestris cone axis fibers. The sclerenchyma fibers, which were shorter and wider than fibers, were observed both in scale and axis of all cones. In general, cone axis fibers had lower slenderness and Runkel ratios and higher flexibility ratio than those of cone scale fibers. These results indicated that fiber properties of coniferous cones showed similarities with fibers of hardwood and nonwood species.