Why a 40° Edge Angle for Slicing?



Slicing is the ability of a cutting edge to cut through the side grain fibers to expose end grain fibers.

45° or greater edge angle:

Induces more interaction on end and mixed grain - creating bounce Reduces the ability of the bevel to slide over end or mixed grain Higher the angle, higher resistance to slicing Much more likely to tear the end grain fibers

40° edge angle:

Allows the blade to glide on the wood surface – helps to eliminate bounce Neutral edge angle for slicing through side grain to expose end grain Works for every density of wood from very soft to very dense Eliminates torn grain (Sharp edge required)

35° or lower edge angle:

Lower the angle = more aggressive tool Does not give a better surface finish than 40° Edge retention (life) is shortened sooner More fragile cutting edge