Four Types of Multipliers in FVS

☐ Automatic Calibration

☐ Multipliers applied before Calibration

☐ Multipliers that alter regeneration

☐ Multipliers applied after Calibration

Automatic Calibration

☐ Scales small tree height growth

☐ Scales large tree diameter growth

☐ These values are attenuated overtime

☐ Can be turned off with NOCALIB

Multipliers applied before Calibration

☐ Applied before Calibration

☐ Permanent scale factor (not attenuated)

☐ Large Tree diameter: READCORD

☐ Large Tree height: READCORH

☐ Small Tree height: READCORR

Multipliers that alter regeneration

☐ Modifies regeneration establishment

☐ Height of seedlings: HTADJ

☐ Probability of stocking: STOCKADJ

☐ Species occurrence: SPECMULT

☐ Numbers of stump sprouts: SPROUT

Multipliers after Calibration
- Not attenuated
- Can be changed cycle to cycle
- Large Tree Diameter growth: BIAMULT
- Large Tree Height growth: HTGMULTT
- Small Tree height growth: REGHMULT
- Small Tree diameter growth: REGDMULT
- Crown change: CRNMULT
- Mortality: MORTMULT
- End of cycle Diameter Growth: FIXDG
- End of cycle Height growth: FIXHTG
- End of cycle Mortality: FIXMORT
- End of cycle crown widths: FIXCW

Example steps for correcting consistent bias large tree diameter growth

1. Insert CALBSTAT keyword to get values

2. Examine and throw out outliers

3. Re-run

4. Auxiliary file with provide average large tree diameter growth scale factors by species

5. Apply with READCORD keyword

Localization and Calibration: FVS

Table 1—Mean large-tree diameter increment correction scale factors by species and ecological section.

Species name	Species number	Blue Ridge Mountains	Appalachian Piedmont	Ridge & Valley
shortleaf pine	5	**	**	1.304
longleaf pine	8	*	**	1.087
eastern white pine	12	0.842	*	*
loblolly pine	13	**	0.720	1.065
virginia pine	14	0.675	0.586	0.851
hickory species	27	**	**	1.041
yellow poplar	45	0.992	**	**
scarlet oak	64	0.728	**	**
chestnut oak	74	0.749	0.797	1.056
northern red oak	75	0.808	**	**

* Species does not occur in ecological section
** Insufficient data to create mean scale factor or no bias present.