

### BMPs for Silvicultural Chemicals

J. L. Michael, USDA Forest Service, Southern Research Station  
520 DeVall Drive, Auburn, Alabama 36849, michajl@auburn.edu

Silvicultural chemicals include fertilizers and pesticides applied for forest management. All states East of the Rockies have at least some form of voluntary silvicultural chemical BMPs (SCBMPs) and it is widely accepted that these BMPs effect some protection of water quality. All SCBWs recommend a minimum width zone (streamside management zone or SMZ) on each side of streams for protection of water quality and aquatic ecosystems. Typically these zones increase in width as stream width increases. In areas where cold-water fish are present, additional widths are designated for their protection. Minimum SMZ widths range from 25 to 300 feet on each side of the stream bank for intermittent and perennial streams. Most SMZ recommendations do not cover ephemeral drainages, ditches or canals. SMZs are generally described as being site specific with width dependent on slope, soil type and other conditions as well as the stream's designation as perennial or intermittent. Adjustments that should be made for these variables are seldom given although a few states (3) describe soil erodibility indices and prescribe additional widths to accommodate soil characteristics. The science behind SCBMPs is often elusive and is discussed. Suggestions for further research are provided.