

Learning Objective: Following this practice exercise students will list and describe the components of a good silvicultural prescription and will be able to construct a rudimentary prescription for a stand.

Instructions: Remember to write one or more prescriptions for EACH landowner objective. These landowner objectives are hypothetical. Both these stands are actually owned by SFASU, but I've included various scenarios to help you improve at prescription writing. See the lab website practice prescription article for more detailed directions on this exercise.

Prepare all prescriptions to cover one full rotation. For uneven-aged regeneration methods, this means until the first new seedling you get established is as old as the oldest trees you generally want to maintain in the stand.

STAND 1: Survey Hill

Location: just east of University Drive and north of Starr Avenue

Landowner Objective 1: This small, non-industrial, private forest landowner would like this stand managed for timber. They plan to use harvest revenues to pay for future treatments and would like to make a profit on the stand as an investment. While they would rather not be sued by the surrounding landowner who own homes adjacent to the property, they also do not want to reduce their investment income substantially to accommodate harvest aesthetics. The stand is currently about 40 years old.

Landowner Objective 2: Owned by SFASU, the committee of SFA faculty, staff, students, and Nacogdoches residents that is charged with managing this property has designated its usage for recreation, primarily focused on the biking and walking trails. Right now they want a plan to manage the forest, not the trail system itself. They would like to maintain canopy over the trails for shade so that they can be used enjoyably (at least relatively speaking) in east Texas summers, and would also like some sort of continuous canopy cover for aesthetics. We are in the Pineywoods ecoregion of Texas, so they would like to focus primarily on growing pines, especially in the overstory, although some hardwoods are OK. There is some concern that pines older than 80 years may be more susceptible to windthrow (based on the committee's opinion more than hard scientific fact), so they would like to try and keep the overstory younger than this. The stand is currently about 40 years old, meaning the committee wants the overstory harvested completely in the next 40 or so years while still maintaining canopy cover over most of the stand at all times. Campus recreation has a reasonable budget that may be used for management treatments. Any harvest revenues go back to the SFA general budget, and may be used anywhere on campus.

STAND 2: Tucker Woods

Location: west of Lanana Creek, east of Raguet Street, and south of Austin Street

Landowner Objective 1: A state wildlife agency would like to improve habitat quality for neotropical migrant songbirds. To do this they hope to mimic old growth forest structure. At any point in time they would like the stand to have large old trees, large standing and downed dead trees, multiple canopy strata, multiple age classes, and a diversity of species including soft and hard mast producers. They want to keep at least half of the stand covered in mature trees at any point in time. Economically, they have a considerable budget for silvicultural treatments. The stand does not need to produce a profit to meet the management objectives.

Landowner Objective 2: A TIMO (Timberland Investment Management Organization) owns the property, and intends to maximize financial returns for their investors. They are SFI certified, and have a company policy to plan for the long-term, three full rotations in the future (but they only need a prescription for the first rotation). Lanana Creek is adjacent to the stand, and this company adheres to Texas Forestry BMP's. They do not plan to convert the stand from its current mixed hardwood composition, but would like to promote higher timber value species such as cherrybark oak that are found on the site wherever possible. They are willing to spend considerable resources on management actions, but ONLY if those actions will turn a profit (i.e. make more in the long term than what they've spent, accounting for the fact that a dollar today is worth a lot more than a dollar 50 years from now). For the purposes of this hypothetical let's pretend the trails, footbridges, and other structures are not present on the site.