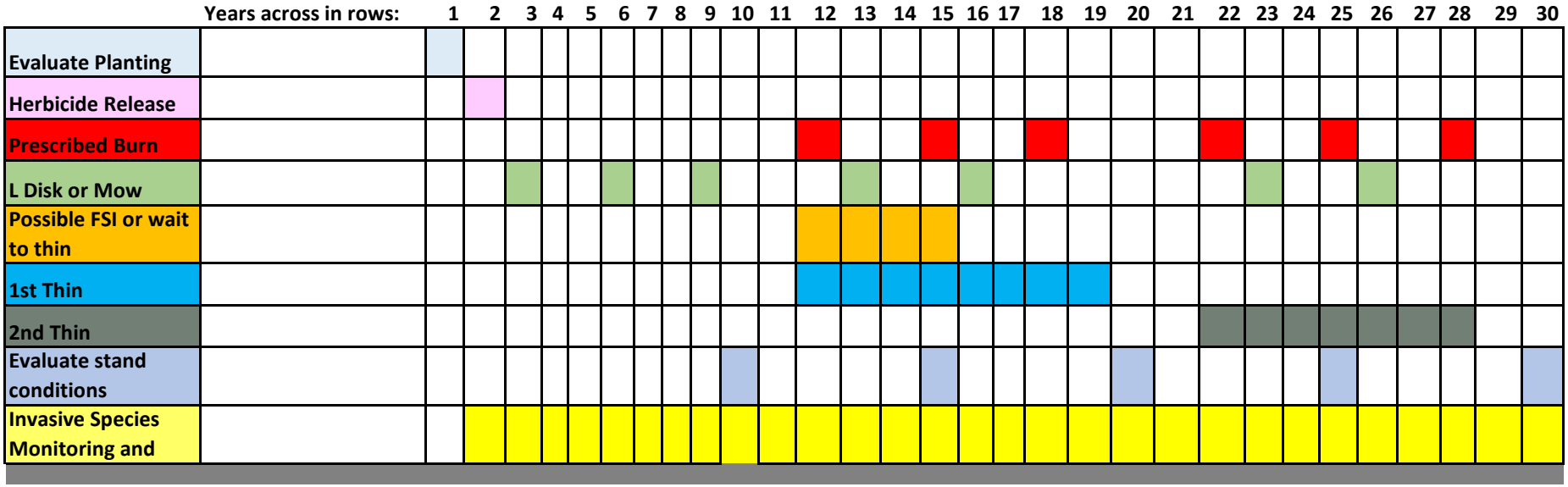
FSA Program # **Pine Planting**

CP3 **Loblolly, Slash or Shortleaf**

Low Density (449 tpa or less)

Medium Density (450 to 599 tpa)

High Density (600 tpa or more)

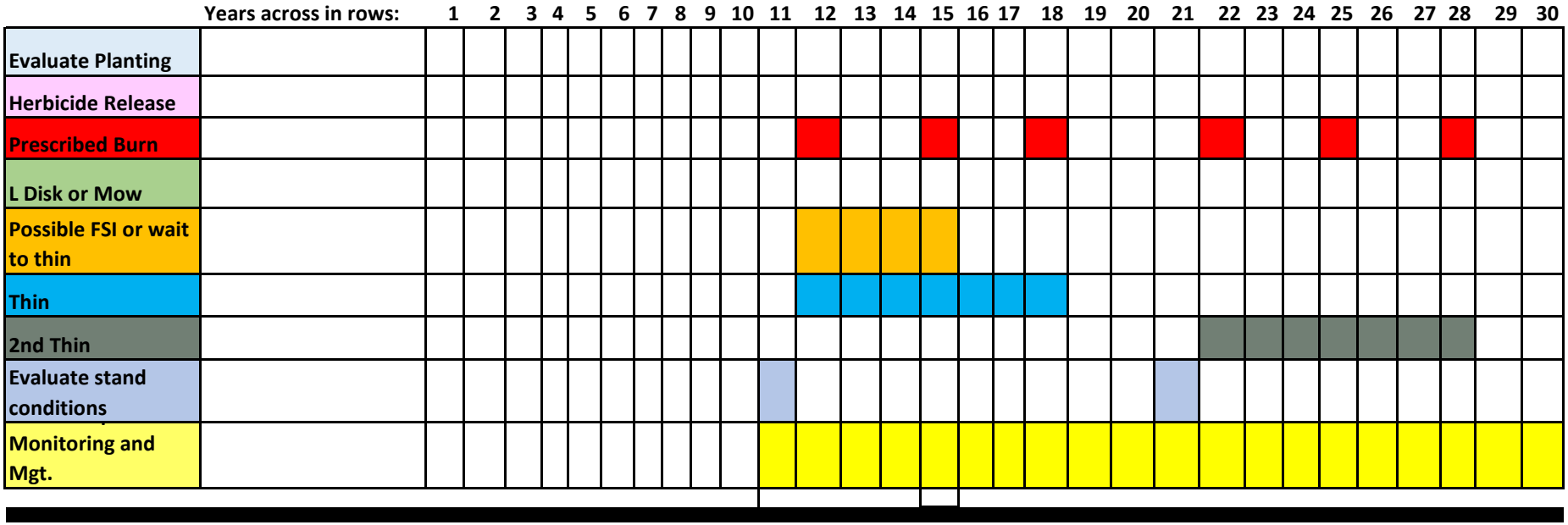


CP11 - only current contracts, no new CP11 contracts

Low Density (449 tpa or less)

Medium Density (450 to 599 tpa)

High Density (600 tpa or more)

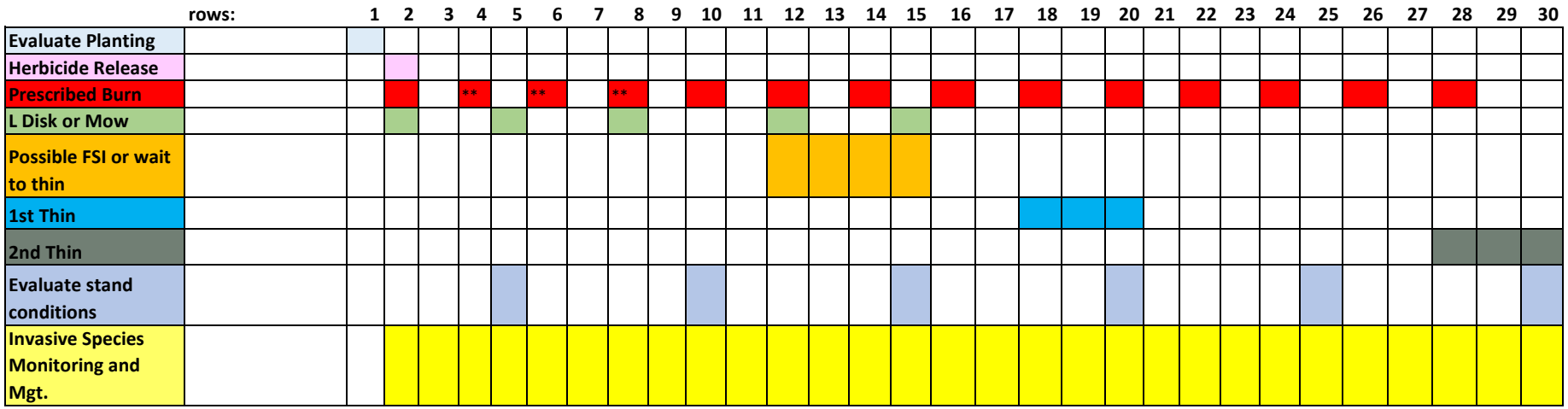


Evaluate Planting	Planting at the end of the first year should have 300 live pine seedlings per acre.
Herbicide Release	Herbicide release is used to release planted longleaf pine seedlings from herbaceous competition. The release may be a band or broadcast spray that reduces the herbaceous competition and allows the longleaf pine seedlings to become established.
Prescribed Burn - Loblolly, Slash, Shortleaf Pines	Prescribed burning should only be done when the pine trees are 15 to 20 ft. in height with adequate fuel on the ground to carry a fire. Also, prescribed burns should not be conducted in stands where the ground fuel connects with fuel into the pine trees canopy (some space should be between the ground and canopy fuels. Presribed burns that alternate between dormant and growing season are optimal to enhance wildlife habitat and control competition.
L Disk or Mow	Light disking is planned if you want to keep or create a disturbed area beneficial to wildlife especially young quail and turkeys. The disked area should never be more than 25% of the total area and disking should be done over the same area. Light disking is to occur between selected rows of planted pine seedlings to encourage growth of native warm season grasses and forbs. This does not work well in planted cut-over sites. Mowing is similar to disking with different results because the ground is not disturbed.
Forest Stand Improvement, FSI	Longleaf pine stands being encroached upon by undesirable hardwood trees may be treated to reduce the hardwoods allowing the longleaf pines to dominate the site.
Thin	Thin when the live crown ratio is between 25 and 30 percent. Live Crown Ratio is the portion of the total tree with branches that have green needles. As the stand grows the crowns close up which reduces the LCR. Thin before the LCR reaches 20 percent. With Longleaf pine, thinning will not occur as quickly as with other southern pines because the crowns are not as dense. Thinning should reduce the crowded trees down to a fully stocked condition as determined by a forest stocking graph or table which are available by species.
2nd Thin	The second thinning is to maintain the health and vigor of the remaining trees. The second thinning should release trees with good vigorous crowns. Thinning should reduce the number of trees per acre down to a fully stocked condition as determined by a forest stocking graph or table which are available by species.
Evaluate stand conditions	A key in the process is to maintain a healthy forest that has the ability to do its functions in the ecosystem. Forest stands should be monitored for stocking levels, tree species composition, potential risks or invasive plants, wildlife habitat and overall condition. The monitoring process will guide the planner in developing potential management practices to enhance the stand or to minimize risk of damage or loss. The planner should use this information to discuss management options with the landowner. A critical time to evaluate the stand condition is at the end of a contract period prior to the next sign-up to address future practices to maintain the health of the forest.
Invasive Species Monitoring and Mgt.	Invasive species are a major problem across the United States. In the South, several invasive plants cause loss of suitable habitat, out compete native trees and shrubs and are difficult to manage. CRP plantings should be monitored annually for invasive plants and these plants should be controlled if they are found on the site. The sooner controls are implemented the greater the success in controlling these plants.

A key is to maintain the health and vigor of the trees so that they can sustain their functions in the ecosystem.

The spot treatment of exotic, invasive species may be necessary during any year, preferably before those species make seed and expand across the site. Prescribed burns require a burn plan and must be conducted by a Certified Prescribed Burn Manager.

FSA Program #	Pine Planting
CP3, CP36	**Longleaf**
	Low Density (400 tpa to 500 tps)
	High Density (501 tpa to 600 tpa)
CP11, CP36	Low Density (400 tpa to 500 tps)
CP11 only for current contracts	High Density (501 tpa to 600 tpa)



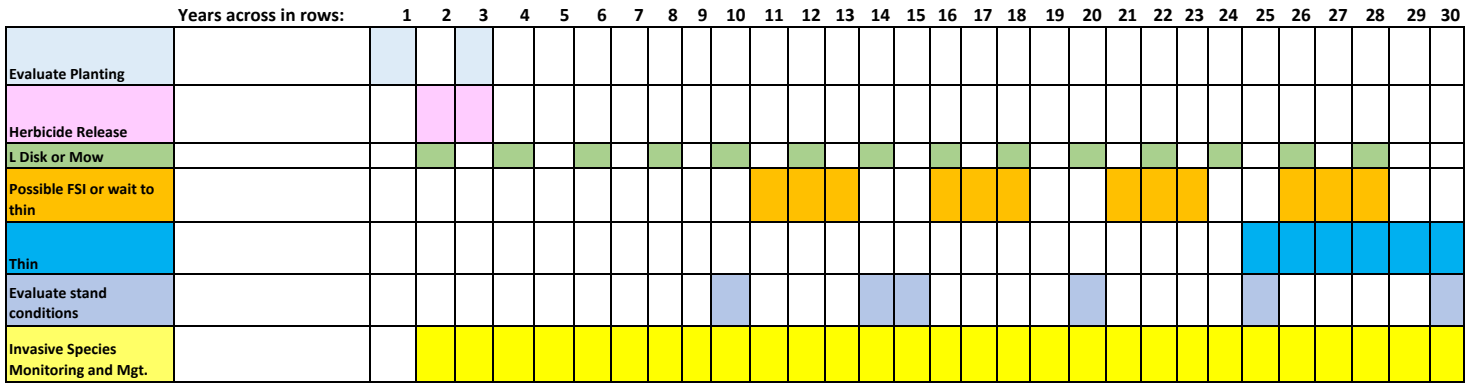
Evaluate Planting	Planting at the end of the first year should have 300 live longleaf pine seedlings per acre.
Herbicide Release	Herbicide release is used to release planted longleaf pine seedlings from herbaceous competition. The release may be a band or broadcast spray that reduces the herbaceous competition and allows the longleaf pine seedlings to become established.
Prescribed Burn - Longleaf Pines	Prescribed burning may start when the pines are in the "grass stage" where the terminal bud is near the ground but protected by dense needles. Note: ** Prescribed burns when the longleaf pine seedlings are growing but less than 10 ft. tall should be conducted during cooler weather (Dormant Season)and by using backing fires. Longleaf pines greater than 10 ft. tall may be burned on a regular basis or as needed when adequate fuel is present on the ground. Prescribed burning in longleaf pine stands is very beneficial for wildlife and the longleaf pine ecosystem. Presribed burns that alternate between dormant and growing season are optimal to enhance wildlife habitat and control competition.
Light Disk or Mow	Light disking is planned if you want to keep or create a disturbed area beneficial to wildlife especially young quail and turkeys. The disked area should never be more than 25% of the total area and disking should be done over the same area. Light disking is to occur between selected rows of planted pine seedlings to encourage growth of native warm season grasses and forbs. This does not work well in planted cut-over sites. Mowing is similar to disking with different results because the ground is not disturbed.
Forest Stand Improvement, FSI	Longleaf pine stands being encroached upon by undesirable hardwood trees may be treated to reduce the hardwoods allowing the longleaf pines to dominate the site.
Thin	Thin when the live crown ratio is between 25 and 30 percent. Live Crown Ratio is the portion of the total tree with branches that have green needles. As the stand grows the crowns close up which reduces the LCR. Thin before the LCR reaches 20 percent. With Longleaf pine, thinning will not occur as quickly as with other southern pines because the crowns are not as dense.
Evaluate stand conditions	A key in the process is to maintain a healthy forest that has the ability to do its functions in the ecosystem. Forest stands should be monitored for stocking levels, tree species composition, potential risks of invasive plants, wildlife habitat and overall condition. The monitoring process will guide the planner in developing potential management practices to enhance the stand or to minimize risk of damage or loss. The planner should use this information to discuss management options with the landowner. A critical time to evaluate the stand condition is at the end of a contract period prior to the next sign-up to address future practices to maintain the health of the forest.
Invasive Species Monitoring and Mgt.	Invasive species are a major problem across the United States. In the South, several invasive plants cause loss of suitable habitat, out compete native trees and shrubs and are difficult to manage. CRP plantings should be monitored annually for invasive plants and these plants should be controlled if they are found on the site. The sooner controls are implemented the greater the success in controlling these plants.

A key is to maintain the health and vigor of the trees so that they can sustain their functions in the ecosystem.
The spot treatment of exotic, invasive species may be necessary during any year, preferably before those species make seed and expand across the site.
Prescribed burns require a burn plan and must be conducted by a Certified Prescribed Burn Manager.

FSA Programs **Hardwood Planting**

CP3A, CP31, CP23, CP23A, CP40, CP4B, CP4D, CP38C

Bottomland Hardwood planting, wetland restoration, riparian buffers, wildlife plantings (300 to 450 trees/acre)



Evaluate Planting	Planting density 300 to 450 trees per acre. Planting evaluation is to determine if adequate regeneration is in place or is additional planting necessary to achieve the goal of 150 live trees per acre.
Herbicide Release	Herbicide release is to band spray over hardwood seedlings to release them from herbaceous competition to improve their survival and growth. Hardwood herbicide release: Hardwoods may be released from herbaceous competion with herbicides. Be careful. Only a few herbicides are listed for use in hardwoods to control herbaceous vegetation and these are generally applied prior to the seedlings leafing out.
L Disk or Mow	Light disking or mowing is to create and maintain some low vegetation beneficial for wildlife. This practice is only to be done on less than 25% of the area and done in the same location and not spread around on the site.
	Light disking: Plan if you want to keep or create disturbed areas beneficial to wildlife especially young quail and turkeys.
	Light disking only to occur between the rows of planted seedlings. Note: The entire area does not need to be disked especially if desirable native hardwood seedlings are becoming established between the planted trees.
	Mowing: Similar to disking with slightly different results because the ground is not disturbed.
Possible FSI or wait to thin	Forest Stand Improvement (FSI) may be used to enhance desirable conditions by removing less desirable trees or shrubs, balancing the species composition, improving the density or stocking of the stand. Forest Stand Improvement practices may be mechanical or chemical, however, in hardwood stands the chemical application must be single stem (injection or basal spray) as herbicides are not selective among hardwood species. **NOTE**: Use forest stocking graphs or tables to manage the stand for full stocking. There is a range of basal area and trees per acre that provide choices for the stand upon completion of the FSI practice.
Thin	Hardwoods may be considered for thinning when the canopy is closed up and the diameters are greater than 5 inches with at least 25 ft of height with a top diameter of 3 inches. Another consideration is the availability of a market for the small hardwood material. If the trees are large enough and no market exists, FSI may be useful to keep the stand healthy meeting its function to provide wildlife habitat, improve water quality and keep the soil from eroding. Density or stocking should be based on a forest stocking graph or table maintaining a fully stocked stand.
Evaluate stand conditions	A key in the process is to maintain a healthy forest that has the ability to do its functions in the ecosystem. Forest stands should be monitored for stocking levels, tree species composition, potential risks of invasive plants, wildlife habitat and overall condition. The monitoring process will guide the planner in developing potential management practices to enhance the stand or to minimize risk of damage or loss. The planner should use this information to discuss management options with the landowner. A critical time to evaluate the stand condition is at the end of a contract period prior to the next sign-up to address future practices to maintain the health of the forest.
Invasive Species Monitoring and Mgt.	Invasive species are a major problem across the United States. In the South, several invasive plants cause loss of suitable habitat, out compete native trees and shrubs and are difficult to manage. CRP plantings should be monitored annually for invasive plants and these plants should be controlled if they are found on the site. The sooner controls are implemented the greater the success in controlling these plants.