

Natural Resources
Conservation Service

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Cover Crop Selection and Calculator Tool for the Mid- South



Fig. 1. Rye and crimson clover cover crop mix planted on no-till cotton in Yalobusha County, Mississippi.

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Purpose: The purpose of this paper is to provide a tool for NRCS field staff that will allow them to select a cover crop species based on a producer(s) resource concern, as well as estimate the seed costs and seeding rates for both recommended and custom cover crop mixes.

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Cover Crop Selection and Calculator Tool for the Mid-South

The purpose of this document is to equip field staff with a tool that provides producer(s) with a list of cover crop species that will address their resource concerns and estimate the seed cost/seeding rate for both recommended and custom cover crop mixes. The file for this excel tool can be found by clicking on the link below, or by going to the FOTG for Mississippi and open the file with the file name “340_OTH_Cover_Crop_Calculator_Final_2022”.

<https://efotg.sc.egov.usda.gov/api/CPSFile/36247/>

This file is a “Read only”, so it is recommended it be downloaded as a copy. To download a copy, go to the tab labeled “File” then “Save As” and click to “Download a Copy”. There will be a pop up labeled “Download” selection “Yes”. Next click “Open”, the next pop up will say “Open as a read-only copy?” click “Yes”. Once the file has opened, verify you are using the newest version of this document. To do so, go to the first tab labeled “1. Introduction” at the top of the page there are cells labeled “Date Published:” and Updated Last On:”. Year of update should correspond to year of use.

The following instructions are duplicated in the first tab of the document (please read through the tab before proceeding). Complete the questionnaire in the tab labeled “2. Decision Tool” for a producer’s scenario. Once completed, cover crop species that meet the resource needs for that scenario will auto populate at the bottom of the questionnaire. In the tab labeled “3a. Cover Crop Price & Info”, you will find all the species available in this calculator. Edits can be made to the “\$/lbs.” column to make the tool more accurate for a particular situation. These changes will auto populate through the rest of the document. Additional information available for each species include Seed Cost (\$/lbs.), Season, Functional Group, Host for Root Knot Nematode (RKN), CSP Enhancement, Planting Date(s), Seeding Rate(s) (Broadcast and Drill), Recommended Varieties, and recommendations for Aerial Broadcast. Cover crop ratings for resource concerns can be found in the tab “3b. Cover Crop Ratings.”

In the tab labeled “4a. Broadcast Mixes”, you can find 11 pre-calculated cover crop mixes for unique mid-South scenarios using broadcast planting. Mixes are organized by next cash crop and total seed costs. In the tab labeled “4b. Drill Mixes”, you can find 11 pre-calculated cover crop mixes for unique mid-South scenarios using direct seeding with a grain drill. Mixes are organized by next cash crop and total seed costs. If you would prefer to calculate a custom mix, you can access either tab “5a. Broadcast Calculator” or “5b. Drill Calculator”. Please follow the instructions below to use these calculator(s):

1. Fill out the column labeled “Species”. This can be done by selecting the species of cover crop that you want to use from the drop-down list. Recommended species from the “2. Decision Tool” scenario can be found in the table labeled “Selection Tool Specie(s) Recommended” and will auto populate from the results in tap 2. Use the recommended species to create a custom mix.
2. Fill out the column labeled “Percentage of Mix”. This can be done by entering the percentage of the mix that you want the selected species to occupy. For mixes, you will need to make sure that all the species combined do not exceed 100%.
3. All the other cells in the calculator auto fill with information related to the mix. Important information such as seeding rate and seed costs for each species can be found in the row corresponding to the species.
4. In the summary table below the calculator, you will see the total percentage (should equal 100%), total seeding rate (lbs./acre), seed cost (\$/acre), and cost with blend charge (\$/acre) of the cover crop mix.