

DISTRICT 8 GROUP MEETING - JACKSONVILLE, FLORIDA  
R. V. GLENN, COORDINATOR  
(Alabama, Florida, Georgia, Mississippi and Tennessee)

APRIL 27-28

The Coordinator explained the emergency character of this particular meeting. The authorities in Washington were particularly desirous to standardize grassing specifications, adaptable for general use in grassing airport areas. It was stated that this was absolutely necessary, at this time, to eliminate all dust from airport areas. This excessive amount of dust has proven so injurious to motors that no economical maintenance of the equipment was possible. In this connection proposed emergency landing strips were included which required a selection of area one (1) mile square, adjacent to the highway, at the point selected by the military authorities. This large area proved necessary in order to orient the runways with the prevailing winds. It was stated that the graded area of these emergency landings could be not less than 500 feet in width, with runways of 150 feet. One (1%) per cent grades would be the maximum used. At each of these locations, grassing of the entire usable area would be necessary.

SOILS. A general discussion brought out the basic relationship of different soils to bearing capacity for traffic loads. It was indicated that typical dry beach soils would carry only 12 to 16 lbs. per sq. in., whereas average soils found within this district would carry as high as 75 lbs., and if stabilized would sustain 100 lbs. or more.

In soil shoulder stabilization methods this bearing value would range from a minimum of 40 lbs. to 100 lbs. or better. This was thought to be adequate for medium weight plane operation; however, for bomber landing areas the minimum bearing value should be 75 lbs.

From the standpoint of cost and considering present priorities on surfacing materials, it was generally agreed that turf protection on all ground surfaces presented many practical advantages for immediate war purposes. The decision was reached to give this preference wherever possible.

FLIGHT STRIP SITE SELECTION. It was estimated that flight strips would cost between \$250,000 and \$300,000, including taxiways, of which the mile square area would cost about \$12,800 on the basis of an average cost of \$20.00 per acre. These projects are initiated by the War Department, the first step being the selection of the area in which the landing strip is desired. Through a general reconnaissance a suitable site is then selected. It is desirable to avoid, if possible, highly productive land, or one with waterways traversing it. The second step is then to clear the selection through the State Highway Planning Office. War Department approval is then requested. With these three steps satisfactorily cleared, the engineering study follows with preparation of plans, estimates and specifications; the final step being actual construction in close collaboration with the Public Roads Administration and the Army Air Corps.

For the present "camouflaging" these landing strips will not be necessary.



GRASSING SPECIFICATIONS. The Committee then decided to proceed immediately with the drafting of the grassing specifications.

The Coordinator read letters from the States of Mississippi and Tennessee, regretting the fact that neither was represented. These letters contained pertinent comments regarding various items in the proposed specifications. Model specifications had previously been furnished all five states in the area for this particular comment.

The first decision reached by the meeting was tentatively to adopt the terminology suggested by the U.S. Department of Agriculture for seeding, sodding and sprigging methods. (See page 126a of 1941 Committee Report.) It was thought that the term "spot sodding" would be preferable to the use of the term "check" sodding. The term "check sprigging" is not needed as "row sprigging" is considered an equivalent term. "Row seeding" is not essential for highway use although it is a term used by commercial seed growers.

GROUND PREPARATION. The Committee discussed the preparation of ground for seeding, sodding and sprigging. The recommended depths for loosening was 4 in. and 6 in., depending upon the character of the soil. All top soil will be salvaged during construction and applied when necessary not less than 2 in. deep on the shoulders, 3 in. on slopes and 2 in. in the gutters.

It was brought out that roadside practices have been seriously handicapped in the past on account of a lack of ground preparation.

FERTILIZERS. Cotton seed meal tends to be the only available high nitrogen content fertilizer in Alabama due to standardization on low nitrogen fertilizers for agricultural crop use, but it is twice as expensive and therefore its use is limited.

The T.V.A. fertilizer supply was discussed.

Mississippi has considered the 10-6-4 for bluegrass, but the local available 6-8-8 mixture is in use and has been found very good for that purpose in Mississippi, which makes a second application some months later up to the second or critical year in maintaining a good growth of grass. Mississippi recognizes that high nitrogen content produces better grass for at least the period through which the fertilizer lasts.

Alabama has favored the use of a soil test kit such as that made by the LaMott Chemical Laboratories, but has not yet been able to purchase a kit for field testing of soils.

SEEDING. In regard to seeds and seeding it was felt that the Eighth District Area should be considered in two sections, a Northern and a Southern section, the grass mixes being used only in the northern section. Different mix-

es were not recommended for sand, clay and loam, except in soil preparation. The best season sowing should be between March 15 and May 15 in the Northern section, and between February 15 and April 15 in the Southern section. The line between these two sections would run approximately from Augusta, Georgia through Birmingham, Alabama, to Greenville, Mississippi.

The topsoil grasses recommended were Centipede, if available, and Carpet and Bermuda. The depth applied should not be less than 3 in. on subsoil, 2 in. otherwise, and the desirable seasons for applying would be from April 1 to September 15, in the Northern section and until October 1 in the Southern.

It developed that Tennessee uses bluegrass. Carpetgrass and Bermuda are used in Alabama. Recognizing the farmer's aversion to Bermuda, Alabama now builds barrier strips of common lespedeza 15 ft. from edge of pavement to right of way in order to prevent the spread into private property.

SPRIGGING - In Florida Bermuda is sprigged on all contracts. Florida also recommends the Carpetgrass seed to right of way limits in moist flat clay areas. Florida also considers Centipede an ideal grass for roadside protection because no mowing is required. They believe it to have better creeping quality on the surface and in sending roots down on shoulders and strips. Because of its high cost, however, it is not feasible for highway use. It was brought out that the Centipedegrass placed on 5 ft. centers would completely mat in two years, and it was believed that it will be largely used in the future.

These three Southern grasses were rated in the following order:

1. Carpetgrass
2. Centipedegrass/1
3. Bermudagrass

Bermudagrass is planted on practically all road projects in Alabama. It is the best all purpose grass for use over the State as a whole. In sections of Alabama where Carpetgrass will grow, it does better than Bermudagrass. Carpetgrass can not be sprigged successfully, like Bermudagrass, but grows fine from seed. It requires a soil with more moisture than Bermudagrass. It also makes a heavy turf which stands wear well.

Centipedegrass grows well in Alabama and is advisable to use on back slopes but would not advise the use of it on shoulders or where it would be subject to hard usage. Its one advantage is that it will grow on soil with a much lower plane of fertility than either carpet or Bermuda. In places where Centipedegrass was growing we have seen it killed by an excess amount of sulphate of ammonia and Bermudagrass would then come up and look fine. The best grasses in Alabama for erosion control are Bermuda and Carpetgrass. Under normal conditions it would be inadvisable to plant Bermudagrass seed as we have usually received a very poor percent of germination in Alabama. On steep slopes and places where erosion cannot be stopped by grass, we have had remarkable success with Kudzu.

1 - Excepting on shoulders or other areas subject to traffic wear.



It was brought out that the most ideal condition for the use of carpet-grass was a sandy loam soil, but the results were excellent on a 4:1 slope seeded clay soil. It developed that a bulletin on the use of these three different grasses in the South was badly needed.

For sprigging, two types of grasses were recommended, Centipede and Bermuda, with rows 12 in. on centers and sprigs placed continuously in the rows. Sprigging can be carried on any time in Florida and from April to October in the other four States.

USE OF GRASS MULCH. Mulching was generally discussed, the general rate of application being from  $\frac{1}{2}$  to 1 in. and should be used on slopes, shoulders and gutters. Wherever necessary, it should be anchored. Of the various mulches discussed, pine needles would be the least desirable. Native hay is not available in any quantity in this District.

Greater use of grass mulching was urged. It was thought that increased use will come through the maintenance department, as maintenance engineers are "sold" on its economy values. Grass mulch cuttings are considered best.

SOD. It was again emphasized that topsoil should be saved during the planning stage, conserving it in temporary storage piles until needed. The use of sod headwalls at the ends of flexible pipe was discussed and favored. The use of sod checks in ditches was not deemed desirable. Tennessee reported that they were no longer using rubble gutters. Mississippi uses Bermudagrass almost entirely and has found satisfactory results with inexpensive sod mulch or broadcast sprigging methods. The next best method is sprigging in rows 12 in. apart.

WATERING. Of the five States interested, Tennessee was the only one favoring a separate payment for watering. It was decided to include this item on a lump sum basis in the standard specifications.

GUARDRAIL. It was the consensus opinion that because of guardrail priorities at the present time, that no slope be steeper than 4:1 and flatter if possible. This was considered a traffic safety and economical maintenance measure.

JOINT INSPECTIONS. It was unanimously agreed upon that both in reconnaissance survey and during construction, joint inspection by the landscape engineers and construction engineers was highly desirable.

POSTWAR PLANTINGS. All non-essentials such as tree planting, transplanting, shrubbery, etc., are to be eliminated for the duration of the emergency. The principal objective will be "Naturalization", so aptly defined in Mr. Hursh's paper.<sup>2</sup>

The meeting then adjourned, with the selection of Alabama as the next meeting place of the Committee.

<sup>2</sup> - THE NATURALIZATION OF ROAD-BANKS. By C. R. Hursh, Senior Forest Ecologist, Forest Service, U. S. Department of Agriculture. Technical Note No. 51. Appalachian Forest Experiment Station, February, 1942.