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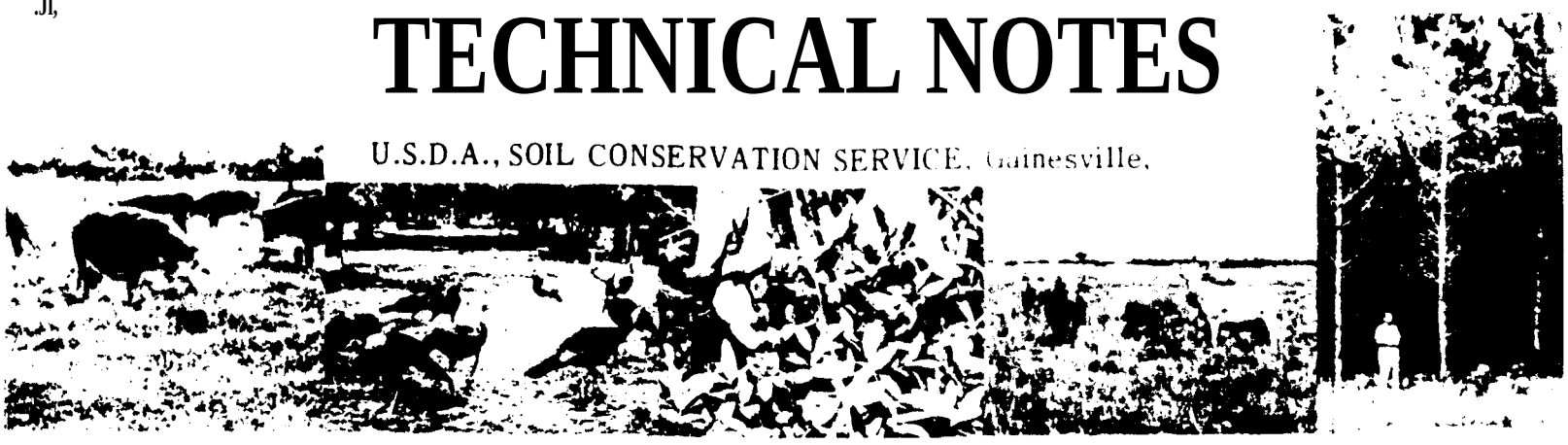
TECHNICAL NOTES

U.S.D.A., SOIL CONSERVATION SERVICE, Gainesville, Florida



AGRONOMY BIOLOGY PLANT MATERIALS RANGE WOODLAND

AGRON-FL 29 MAY 1983

EROSION CONTROL STRUCTURE FOR PRE-VEGETATED
SHALLOW CHANNELS
"The Burgess Hide-A-Bale Barrier"

It is unusual when a newly shaped waterway or diversion channel can be established to a protective vegetative cover without undergoing damaging erosion. Mulching the bare soil surface will help to lessen the loss of seedbed, fertilizer and seed by sheet erosion. The most damaging erosion, however, is the rills and gullies that can so easily develop in the bottom of the newly constructed and seeded waterway. Mulch alone is of minimal value in preventing the start of gully erosion in the bottom section during the pre-vegetated period. Generally, it is less costly to apply ~rosion preventive measures than to take the risk of loss of soil material and cost of repair.

One technique that has proven effective in preventing excessive erosion is the "Burgess Hide-A<'"Bale Barrier" which was developed by ~1arvin Burgess, SCS State Resource Conservationist in South Carolina. The method has been in field use for several years there with very good results.

Attached is a job sheet on use and establishment of these structures. Additional supplies may be requested from the Area office

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~ VANCE, JR JOHN F,
Biologist

~~~~'~. LAWRENCE
Agronomist
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AT THE TIME THE WATERWAY IS PLANNED WITH LANDUSER, PLAN FOR THE USE OF EROSION CONTROL BARRIERS

1. Select the spacing and number of barriers needed:

   --at changes to steeper slopes
   --usually not over 200 feet apart
   --as indicated by existing eroding points

3. Select specific locations and install barriers before dressing up the newly shaped waterway.

4. Usually only 4 to 6 bales of hay or straw (small grain or pine) are needed for each barrier.

5. Make cuts across the bottom section of the waterway deep enough to hold the bales placed end-to-end, preferably lying on their side

6. The top side of the bale lying in the cuts should be approximately even with the graded floor of the completed waterway.

6. The downslope wall of the cut should be vertical.

7, Fill around the bales to ground level and compact with equipment wheeltracks.

8. Grade the waterway floor to a smooth surface, prepare seedbed, and plant as if the below surface barriers were not there.

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MATERIALS

Erosion Control Barriers:

barriers x =
(No.) (Bales per barrier) (Total no. of bales)

Mulch Material:

_____ per acre x (No. of bales per tons) (Acreage-in Structure) = (Total mulch)

Seed, Sprigs or Plants:

X =
(Kind) (Rate/unit) (Acs. or 1000 sq. ft.) (Total)

=

X

=

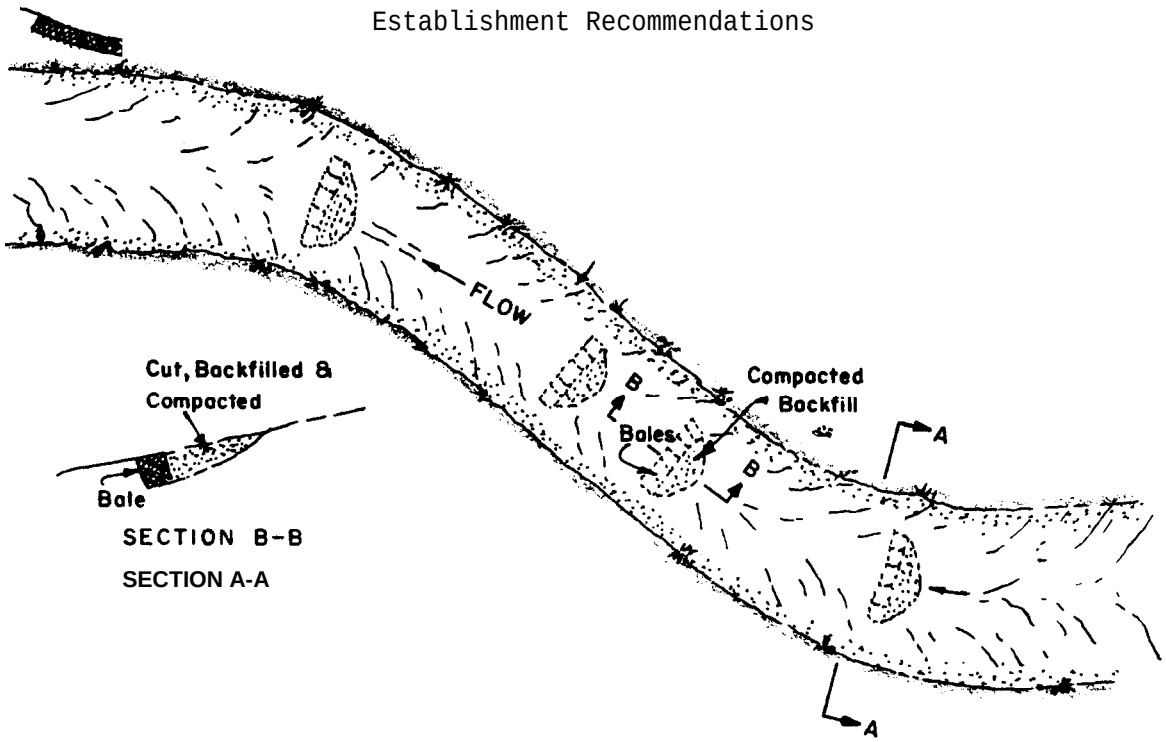
Fertilizer:

x =
(Analysis) (Lbs. /unit) (Ac. or 100-0sq.mft.) (Total)

x =

Lime:

x =
(Type) Rate/unit) (Acs. or 1000 sq. ft.) (Total)

Other
t1aterials:

7. Establishment Recommendations