MSU Extension Publication Archive

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

Band Seeding for Better Forage Seeding Michigan State University Cooperative Extension Service F Folder Series Farm Crops Department Issueed March 1954 4 pages

The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.

22.315

EXTENSION FOLDER F-180

BAND SEEDING

BETTER FORAGE SEEDING



Standard model grain drill adapted for band seeding

By STAFF MEMBERS

of the

FARM CROPS DEPARTMENT C. R. KALIFMAN COUNTY ACR C LTURAL AGENT HOWELL, MICHIGAN

MICHIGAN STATE COLLEGE COOPERATIVE EXTENSION SERVICE EAST LANSING

BAND SEEDING For Better Forage Stands

Band seeding is a new method of establishing better stands of small seeded legumes seeded alone or seeded with oats or barley.

The legume seed is dropped in a narrow band— 12 inches behind the outlet in the drill shoe—on the surface of the soil and directly over the fertilizer, and the grain drilled from $1-2\frac{1}{2}$ inches deep. The drill-disk furrow is closed before the seed falls on the ground.



Fig. 1. Side view of a standard grain drill (same model as on the cover) adapted for band seeding. A V_2 -inch spiral seed-tube 18 inches long, from another make of drill, has been attached with a cotter key to the original seed-tube leading from the legume seedbox. The 18-inch spiral tube moves freely within a section of 3/4-inch electrical conduit tubing, 15 inches in length, when the disks are raised or lowered—or if the end of the conduit strikes an obstruction during seeding. The conduit is fastened to the top of the drill shoe with thin strap iron shaped like a radiator hose clamp. The lower end of the conduit is secured to the bottom of the drill shoe casting by $V_4 \propto 1 \propto 11$ -inch strap iron and U-bolt. The adapted drill bands the seed on top of the soil—12 inches behind the disk—over the fertilizer.



Fig. 2. Another method of adapting a drill for band seeding. Conduit tubing extends the original seed-tubes so that the seed is placed directly behind the disks, on top of fertilizer. Since the steel conduit is clamped to a 2 x 2-inch board bolted to the drill frame, the tubes themselves have no "give." The necessary flexibility to prevent damage from obstructions is provided by rubber milking machine cups slipped over the tube ends.

Cultipacking after seeding, or the covering effect of rains, effect shallow seed coverage.

(NOTE: The band-seeding method is not designed for making spring seedings of legumes in wheat. The conventional grain drill arrangement, with the legume seed falling through fertilizergrain outlet into the drill disk furrow, is more satisfactory for establishing these seedings.)

Why Band Seed?

Band seeding gives stronger stands with less seed than broadcast seeding. Results from experiments on several soil types show that seeding rates may be reduced at least $\frac{1}{5}$, if legumes are bandseeded rather than broadcast. Since all the seed is over the fertilizer row when legumes are bandseeded, the small seedlings get a "shot in the arm" from the fertilizer phosphorus within two weeks after germination. The resulting rapid early growth helps the legumes to withstand the hazards of drought, insects, or competition from weeds and the companion crop. Band seeding assures shallow seed placement, and the quick use of fertilizer by the developing seedlings. But it is not a "cure-all." Lime, fertilizer, inoculation, adapted seed, weed control and proper seed placement are essential for good seedings.

Converting the Drill

Until implement companies manufacture "conversion kits," farmers can make their own band seeders. A few hours time and 5-10 dollars for materials will enable a farmer to convert any make of drill into a modern legume seeder.



Fig. 3. A third method—The legume seedbox has been moved from the front to the rear of this drill. This permits dropping the 18-inch spiral seed-tubes directly through holes drilled in the footboard. The ends of the spiral tubes are about 3 inches from the soil surface. They are flexible enough to withstand damage from rocks or uneven ground. This adaptation requires no extra seed-tubes. An extra footboard has been added to facilitate loading of fertilizer.

Important points to remember in converting a drill into a band seeder are:

1. The seed should fall at least 12 inches behind the fertilizer-and-grain outlet to be sure it is on top of the soil and is not covered.

2. The ends of the legume seed tubes should be 2-3 inches above the soil surface to keep the seed

in a narrow band over the fertilizer. Seed will scatter too much if the ends of the tubes are more than 3 or 4 inches from the soil.

3. Covering chains should be removed, since they scatter the seed too much.

Seeding Suggestions

Cultipacking after seeding is usually advised for shallow seed coverage. It may not be necessary in early spring when frequent rains cover the seed. If the soil is heavy and subject to crusting, it may be advisable not to cultipack. Seedings made in late summer should be cultipacked to get shallow seed coverage and to make moisture more available to the seedling.

Examples of Drill Adaptations

The photographs (Figs. 1-4) show three different makes of drills, and how different materials can be used to convert a drill with fertilizer and



Fig. 4. Lengths of garden hose can also be used satisfactorily to adapt a drill for band seeding. The hose must not be cracked, and should be sloped gently to the rear to prevent any clogging by the seed. The hose is slipped over conduit tubing welded to shortened seedtubes on the legume seed box. Lower end of the hose is fastened to a strap iron bolted to the drill shoe. legume seeder attachments into a band seeder. All of the adaptations permit normal raising and lowering of the disks without damage to the legume seed-tubes when going over rough ground or ditches. The use of strap iron and bolts, rather than baling wire, will keep the legume seed-tubes aligned directly over the fertilizer.

Cooperative extension work in agriculture and home economics. Michigan State College and U. S. Department of Agriculture cooperating. D. B. Varner, Director, Cooperative Extension Service, Michigan State College, East Lansing. Printed and distributed under acts of Congress, May 8 and June 30, 1914.