

ASPARAGUS INTER-ROW PLANTING IN BRIEF

This sheet is intended to assist you in planning for effective inter-row planting of white asparagus in 1963. It is very brief but covers most of the essentials you will need to get ready for an inter-row planting program in your 'gras this year. Inter-row planting as described here has been successful only on 7' to 8' beds. The narrower the bed is the more difficult it is to do and more care is required for the method to be successful. A more complete bulletin describing inter-row planting is in preparation and will be furnished to all interested growers when completed.

Planting date. Although weather, field wetness, and weeds will dictate the date of planting to some extent, March 10 to March 15 should be the target period. Every effort should be made to begin planting as soon after March 10 as possible and to complete planting by the end of March. The earlier the planting, the taller and more rugged the barley will be to withstand the splitting and ridging operations during conversion to white.

Preparation of ground. An important operation in inter-row planting in green asparagus prior to conversion to white is furrowing out the centers before planting the barley. The furrow should be as flat bottomed as possible and the spoils should go to the shoulders of the bed where they can be used for ridging later on. Depth of furrow will depend on the width of rows, height of green beds, and eventual height of white beds. 2" to 5" is the usual range. Enough dirt should be moved from the centers so that white ridging can be accomplished without taking out the barley or leaving it on a steep-sided ridge down the center. This furrowing may be done with a flat bottomed furrowing shovel with slanted-up wings long enough to deposit the spoils on the shoulder of the beds, tool bar mounted disks, or the front section of a splitting disk with outside blades removed. If disks are used, a duck foot chisel, heavy chain, or drag should be used to break down the sharp center ridge left by the disks.

Many centers become hard and compact due to tractor traffic. Barley will not do well under these conditions and planters will not always operate properly. Under such conditions chiseling with two or more chisel points to an adequate depth is very important.

Types of planters used. Any type of drill which will plant barley at the required rate and depth in straight, accurate rows is satisfactory. Only one drilled row per asparagus center is needed. Single disk, double disk, chisel-type and runner openers have been used successfully. Fertilizer distributors connected to chisel point openers may be used if the rate can be adjusted low enough. Homemade tool bar mounted planters using standard grain drill parts have been successful. Commercial single unit tool bar mounted planters used for corn, sorghum, etc., are very satisfactory. Plates for several makes are available which will deliver seed at the proper rate. Covering knives or chains may be needed to properly cover the seed. The planters may have to be mounted on drop bars to provide the center of the tool bar with enough clearance above the green 'gras beds.

Combine operations. The furrowing, chiseling, and planting can be combined into one operation if desirable to cut costs and make it easier to do a good job. The furrowing tools can be mounted on a front tool bar while planters and chisels are mounted on the rear. With some types of tools, furrowers and planters can both be mounted on the rear tool bar. It is most important that the furrowing and planting operations be done carefully and accurately. Straight barley rows exactly down the center will make ridging operations later on far easier and more satisfactory.

Varieties. Either Rojo or Arivat barley can be used but Rojo is preferred. California Mariout (blue barley) seldom gets more than 22" to 24" tall and should be considered only where the prevailing

wind is more or less across the rows and the ridges are lower than normal.

Seeding rates. Seeds should be planted at the rate of about 18 to 20 seeds per foot. This will amount to about 10 lbs. per asparagus acre on 8' beds and 12 lbs. per asparagus acre on 7' beds for most barleys.

Depth of planting. Depth of planting will depend somewhat on the moisture condition of the soil but 1½" to 2" should be about right. Very shallow (1" or less) and very deep (more than 3" or 4") should be avoided. As for any crop, the barley should be planted into a good seedbed.

Weed control in grain strips. Weeds in the barley cannot be cultivated out. However, weed control has not usually been found to be necessary. If needed, 2,4-D can be used to control broad-leaved weeds in the strip. Growers have either done the spraying themselves, using 2 spray nozzles over each strip and covering up to 4 strips at a pass, or have had the spraying done by a custom spraying operator. At least 50% greater rates should be used than for barley field spraying since there is no shading to help control the weeds. The County Agricultural Commissioner should be consulted for the necessary permit to use and obtain 2,4-D.

Splitting and ridging. Splitting and ridging for conversion to white 'gras requires more thought and care when inter-row barley is in the centers. Tractor wheels will have to be moved in so as not to run over the barley. It may not be possible to split as

deeply or as widely as in previous practice. The dirt moved in splitting must not go all the way to the barley in the middle or it cannot be picked up by the ridging disks. Satisfactory splitting may require outside blades removed from disks, less disk set, or both. The narrower beds particularly may require "splash boards" at the outside disks to prevent dirt from being thrown on to the barley strip. The new PTO driven asparagus bed mulchers now coming into use are very satisfactory for this operation in inter-planted 'gras. Care and patience in finding the proper set up at this critical stage will pay off in better barley, better beds, and better dust and erosion control.

Destruction of barley. In order to obtain maximum dust protection, the barley is ordinarily left intact for two or three weeks after the end of the asparagus harvesting season. It can be destroyed with sweeps or disks as a separate operation or by normal summer weed control cultivations.

Winter volunteer. Since the barley grows to maturity by the end of the asparagus season, it normally volunteers in the asparagus field the following late fall and early winter. If the volunteer barley is completely covered by water during winter flooding, it will be killed. In unlevel fields where all the barley will not be covered, the barley must be brought under control in the fall before winter flooding. This can be done during fern disking or as a separate operation depending on the weather and the degree of volunteering. The barley should ordinarily be attacked as early as feasible when it is still young and easily destroyed.

Since a brief paper such as this cannot fully cover such a subject, any questions or requests for help in your inter-row planting problems will be welcomed by the author who can be contacted at 145 South American Street, Stockton, telephone HO 6-2581.

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