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The following officers were elected to the 1976 Columbia-Blue Mountain RC&D Executive Board at the annual meeting on January 20, 1976:

President	A.F. Leckie
Vice-president	W.B. Thomas
Second vice-president	Clarence Potter
Third vice-president	F.K. Starrett
Fourth vice-president	Warren McCoy
Secretary	George Hansen
Treasurer	Al Osmin

No-Till Is Nearing

By D. J. Rydrych
Columbia Basin Agricultural
Research Center
Pendleton Station

A recent USDA study estimates that by the year 2000 only 5 per cent of our farmland will be tilled by conventional methods on a nationwide basis.

This means that predictions of 51 per cent for reduced tillage or 54 per cent non-tillage can be a reality in just a few years. The figures for non-tilled cropland in Eastern Oregon may not be as high as the national average but we can expect a considerable increase in reduced tillage.

Non-tillage and reduced tillage has not developed in our wheat country as rapidly as in the corn belt. Restrictive farm policies of the 1950s and 60s tended to discourage increases in crop production. Weed control herbicides were not available for cheatgrass in the early 1950s. In addition, our fertilizer and fuel costs were very low in the early years as compared with the 1970s.

Factors which favor the adoption of non-tillage and limited tillage practices include (1) more effective erosion control, (2) a reduction on labor requirements (7 per cent), (3) faster land preparation, (4) reduced machinery requirements, (5) reduced fuel requirements, and (6) higher yields in certain areas.

Non-tillage research which has been conducted since 1968 in Oregon has shown that with the proper herbicides and drill equipment the program is successful. This concept has been successful with winter wheat, winter barley, winter oats, spring wheat, spring barley, field peas, potatoes and soybeans.

Non-tilled trials have shown that downy brome (cheatgrass) can be controlled more easily with chemicals than can areas that are farmed with stubble mulch. In addition, in incidence of winter wheat disease (foot rot) is

much less in non-tilled than in stubble mulch or plow culture.

Excellent broadleaf weed control has been obtained in non-tilled winter wheat, using the standard herbicides. However, due to the slower growth rate of the crop and the mulched soil surface we find that a residual herbicide is more effective when applied early in the season. During the fallow year, in a wheat-fallow rotation, we have a higher germination of summer annual weeds in non-tilled areas than we do in the tilled fallow areas. A well planned herbicide program eliminates the summer annual weeds in non-tilled fallow effectively.

Usually we can seed our fall crop at any time because soil moisture is near the surface

straw mulch. In the dry season of 1974 we had a deficiency of surface moisture in the low-rainfall areas (12") and seeding was delayed until late October. In 1975 we were able to seed in September because the moisture was near the soil surface. Wheat yields in the 1974 non-tilled Pendleton trials averaged 180 lbs per A more grain than in the plowed areas. Winter Wheat yields in the 1975 non-tilled trials averaged 600 lbs per A higher than conventional tillage. This type of yield response is not possible unless you have an effective chemical fallow program combined with selective herbicides that are effective on grasses and broadleaved weeds in the crop.

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Morrow County Grain Growers INC. H.

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