WEED CONTROL
with
T.C.A. and M.C.P.

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FOR WEEDS IN FLAX

2. 4-D

Recommendations for the use of 2, 4-D in control of broadleafed weeds for 1952 will be the same as in 1951. See Circular A-108 (revised) "Control Weeds With 2, 4-D".

T.C.A.

T.C.A. is recommended for selective control of pigeon grass and barnyard grass in growing flax. When pigeon grass is a serious problem in a flax field, T.C.A. has proved effective in controlling this pest. Occasionally, some leaf burning may occur following application of T.C.A. but this temporary injury soon disappears and the decreased weed competition frequently results in increased yields of flax. Wild oats cannot be controlled by T.C.A. in growing crops.

Rate to Apply

Apply 6 to 8 pounds (90 percent product or its equivalent) of T.C.A. per acre, depending on the amount of pigeon grass present.

Method of Applying

Apply the T.C.A. in at least 10 gallons of water per acre. The main action of T.C.A. is through the soil. Therefore, at least 10 gallons of water per acre are required for thorough coverage. In cases of heavy infestations of pigeon grass, an increased amount of water per acre may result in more effective control.

Time To Apply

Best control is obtained when pigeon grass has emerged and before it is 3 inches tall. Do not treat flax with T.C.A. before it has at least 4 leaves, or after buds begin to form. Most successful control will result when moisture conditions favor vigorous plant growth.

T.C.A. and 2, 4-D Combined

When mustard or other broad leafed weeds are present, 2, 4-D may be combined with T.C.A. and both applied in one application. But, when 2, 4-D and T.C.A. are combined and applied in one application use at least 10 gallons of water per acre.

M.C.P.

M.C.P. is a new selective weed chemical which affects broad leafed weeds in a manner similar to 2, 4-D. It is suggested for trial in 1952 for broad leafed weed control in flax and for legumes underseeded with a small grain nurse crop.

M.C.P. has proved less injurious than 2, 4-D to flax and legumes, along with satisfactory broad leafed weed control. However, the cost per acre of M.C.P. will be 2 to 3 times as high per acre as 2, 4-D. Therefore, its use is suggested where decreased injury to flax or legumes warrants the extra expense.

Recommendations for the use of M.C.P., time, method, rate of applications and formulations will be similar to those for 2, 4-D.

GRASS IN SUGAR BEETS

T.C.A. Where pigeon grass is a common problem in raising sugar beets, use of T.C.A. is suggested, either as a pre-emergence or post emergence treatment. The same rate and method of application as described above for flax are recommended. Under North Dakota conditions post emergence (treating after the pigeon grass has emerged) will usually be more effective. Wild oats will not be controlled by this treatment.

GRASS IN SMALL SEEDED LEGUMES

In seedling or established stands of sweet clover, alfalfa and ladino clover T.C.A. can be used to control annual grasses except wild oats. Spray when weeds are in the seedling stage, with rates and amounts recommended for flax. T.C.A. should not be applied to red
clover, alsike, white clover or to any large seeded legume like soybeans, field peas, etc.

**QUACK GRASS CONTROL**

_T.C.A._ is effective on quack grass at rates of 40 to 80 pounds per acre. For large acreages, cultivation is undoubtedly the most practical control method. For smaller infestations, _T.C.A._ usually will be effective and is cheaper than sodium chlorate, although, complete elimination is not always obtained.

Apply _T.C.A._ as a spray dissolved in 30 to 40 gallons of water per acre to secure good soil coverage.

_T.C.A._ is most effective applied to the soil immediately after quack grass-infested areas are plowed or cultivated during August to October. Lower rates can be used following cultivation.

Enough moisture to move _T.C.A._ into the root zone is necessary for effective control. A residual effect of _T.C.A._ in treated soil, harmful to crops and plants, can be expected for a few months after treatment. Usually, summer or early fall applications will not harm crops planted the next spring, except soybeans or corn.

**Caution:** _T.C.A._ is rather caustic to the skin and to some metals. Wash hands or face if exposed. Flush all equipment after applying _T.C.A._

**SOIL STERILANTS FOR SPOT CONTROL**

_Sodium Chlorate:_

For complete eradication of quack grass in small patches, sodium chlorate is recommended. Apply to the soil 6 pounds per square rod, either as a dry or water application. All plant growth will be killed for a few years. As sodium chlorate is very inflammable, especially when in contact with clothing or organic matter, use it with extreme caution.

_C.M.U._ is a promising new soil sterilant. Use it according to the producer's recommendations.