WASHINGTON
STATE DEPARTMENT OF AGRICULTURE

FRED J. MARTIN - DIRECTOR

Bulletin No. 6

DATE August 12, 1947

WEED DIVISION

301 OLD COURT HOUSE - PHONE 8180
YAKIMA, WASHINGTON
W. C. McMINIMEE - SUPERVISOR

BURNING -- HERBICIDES

ERADICATE NOW- METHODS- CULIKATION, ELECTRAVATION, FLOODING

WEEDS - FARMER'S WORST ENEMY

DON'T LIVE WITH WEEDS

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SEED INSPECTION AND
CERTIFICATION

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Department of Agriculture
FRED J. MARTIN, DIRECTOR
OLYMPIA

301 Old Court House
Yakima, Washington
August 12, 1947

Farm Editor

Dear Sir:

We have received information concerning experiments conducted on Quack Grass by plant scientists. This weed is one of the farmer's enemies and we are forwarding this information to you.

"Steady progress in the field of chemical weed eradication, according to plant scientists of the U. S. Department of Agriculture, promises ultimate control of many of the farmer's worst field pests. Latest advances have to do with the possibility of control of grassy weeds--such as quackgrass. The weed grasses are not controlled by the now well known 2,4-D.

"Recently claims have been made for the effectiveness of IPC (isopropyl-N-phenyl carbamate) as a quackgrass killer. British scientists during the war found this substance, which is in the class of hormone-like chemicals or plant-growth regulators, checks or kills some kinds of cereals, members of the grass family, and that many broad-leaved plants are not injured by it. This led to the assumption that at least some grasses including weed grasses, might be killed by applications of IPC, and now researchers at the Plant Industry Station, Beltsville, Md., announce favorable results from its use on mature quackgrass (with stolons or runners) and on quack grass seedlings.

"Limited experiments conducted show that well established first-year quackgrass plants grown from seed and other quackgrass plants developed from well established stolons were killed by applying IPC to the surface of the soil. The experimenters, applied the chemical dry both outdoors and in the greenhouse, at varying rates, from 5 pounds to 60 pounds to the acre, using sand as a carrier. Even at the lowest rate of five pounds to the acre, (in the greenhouse) the growth of shoots from stolons and of seedlings was completely checked. In 6 weeks after treatment outdoors at the rate of 10 pounds of IPC to the acre all growth was dead--not only

the sprouts but the runners. In the greenhouse the stolon sprout growth was completely checked in 3 weeks and the stolons killed in 2 months with as little as 5 pounds to the acre.

"Experience in the tests indicates, according to Mitchell, Marth, and Kephart, that the effect of the chemical on the plant is primarily from absorption through the roots. Consequently applications to the soil surface have been more effective than applications to the leaves. Experimentally, sand has proved a good material with which to mix the chemical as it readily sifts down to the soil surface.

"The IPC (isopropyl-N-phenyl-carbamate) can be purchased as a fine powder from some chemical supply houses. The product may soon be found in packages under special trade names.

"So far experience with this grass killer indicates the need for care as it will interfere with the growth of useful grasses for some time if the soil is dry. It is inactivated in moist soil, say the research men, at about the same rate as 2,4-D, but so far little detailed knowledge has been built up on proper practice.

"The experimenters warn that little is known so far about what effects may be produced by IPC on most broad-leaved plants. However, results at the Plant Industry Station have confirmed the English observations and that of others that some broad-leaved plants, including sugar beets and some weeds, have shown no signs of injury by it. They have observed no toxic effects to persons using IPC, but recommend reasonable care until more is known about effects on humans and animals."

Trusting that the above information will be helpful, we are,

Yours very truly,

W. C. McMinimee

W. C. McMinimee
State Weed Control Supervisor

WCM:dw

NOXIOUS WEEDS
STATE OF WASHINGTON

Revised: August 1, 1947

Revised List - Effective February 1, 1947

PRIMARY

Common Name	Scientific Name
Bindweed (Wild Morning Glory)	Convolvulus arvensis
Quack Grass	Agropyron repens
Canada Thistle	Cirsium arvense
Perennial sow thistle	Sonchus arvensis
White top (Hoary cress)	Cardaria Draba
	Cardaria Draba var. repens
	Cardaria pubescens
Perennial peppergrass	Lepidium latifolium
Russian knapweed	Centaurea repens (C. picris)
Leafy spurge	Euphorbia Esula
St. Johnswort (Klamath weed)	Hypericum perforatum
White horse nettle	Solanum elaeagnifolium
Camelthorn	Alhagi camelorum
Austrian field cress	Roripa austriaca
Blue flowering lettuce	Lactuca pulchella
Common barberry bushes (rust susceptible species of barberry and mahonia)	Berberis spp. Mahonia spp.
Yellow toadflax (Butter-and-eggs)	Linaria vulgaris
Johnson grass	Sorghum halepense

SECONDARY

Dodder	Cuscuta spp.
Perennial rag weed	Ambrosia psilostachya
Poverty weed (Deathweed)	Iva axillaris
Alkali mallow	Sida hederacea
Corncockle	Agrostemma githago
Docks	Rumex spp.
Sheep sorrel (red sorrel)	Rumex acetosella
Charlock (wild mustard)	Brassica kaber
Plantains	Plantago spp.
Perennial groundcherry	Physalis longifolia and Physalis subglabrata
Fanweed	Thlaspi arvense
Yellow star-thistle	Centaurea solstitialis
Perennial nutgrass (nut sedge)	Cyperus rotundus
Puncturevine	Tribulus terrestris
Wild Garlic (wild onion)	Allium vineale

POISONOUS

Tarweed	Amsinckia intermedia
Water hemlock	Cicuta Douglasii
Poison hemlock	Conium maculatum
Jimson weed	Datura Stramonium
Low larkspur	Delphinium bicolor
Foxglove	Digitalis purpurea
Henbane	Hyoscyamus niger
Creeping buttercup	Rananculus repens
Poison ivy	Toxicodendron radicans
Poison oak	Toxicodendron diversiloba
Cocklebur	Xanthium spp.
Death Camas	Zygadenus venenosus
Tall larkspur	Delphinium glaucum