THE MANAGEMENT OF MIXED CROPPING FARMS WITH
PARTICULAR REFERENCE TO WEED CONTROL.

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SECTION I - WEEDS IN RELATION TO MIXED CROPPING FARM MANAGEMENT

Farm management factors which are directly and often strongly influenced by weeds are:-

1. Selection of suitable crops.

Weeds often force a farmer to grow one crop rather than another and often to substitute a less payable crop for a more payable one. They influence the farmer's crop selection in a negative way. For example, fathen may prevent the growing of linseed; wild oats the growing of cereals for grain; spurrey the growing of turnips.

2. The proportion of total pasture for small seeds and stock.

Weeds may temporarily reduce the relatively more profitable seeds area. For instance, weeds may prevent the saving of white clover, cocksfoot and ryegrass for seed.

3. High crop, stock and pasture seed yields and quality.

Weeds and weed seeds reduce pasture and crop yields and the quality of grain and seeds.

SECTION II - CONTROL OF WEEDS OF ARABLE LAND

The more common weeds which trouble the mixed farmer can be fitted into a two-way classification:-

	<u>Weeds in Crops</u>	<u>Weeds in Pastures</u>	
		<u>Young</u>	<u>Old</u>
<u>Annual & Biennial</u>	Fathen Wild Turnip Wild Oats Spurrey Sorrel Cornbind	Sorrel Chickweed Spurry Wild Oats	Hair Grass Goose Grass Scotch & Nodding Thistles
<u>Perennial</u>	Old Man Twitch Creeping fog Onion rooted twitch Browntop Californian thistle Yarrow	Sorrel Calif. thistle Twitches	All twitches Californian thistle Docks Rushes

CHEMICAL CONTROL:

Unless chemical control is less costly than established husbandry methods it is unlikely that it will replace present day husbandry methods. The point to note about the husbandry methods is that they are often necessarily carried out for reasons other than weed control, and to control weeds against which chemicals are not effective, e.g., twitch. Chemical weed killers on arable farms will be used only if they can achieve success where husbandry methods are not practicable. These husbandry methods fall short of giving effective control in the following instances:-

1. Except for row crops they cannot control or check weeds in a growing crop after it is 3 - 6 inches high.
2. They cannot control or check weeds in a pasture of cocksfoot area closed up for seed.

3. They cannot control weeds in a live fence or a wasteland inaccessible to the plough or mower.
4. They can weaken but not eradicate Californian thistle.

It is just at these points that chemical control can be fitted into the farm economy but it is not by any means completely successful in all instances.

The chart compares the husbandry methods with chemical methods, and the husbandry methods show up fairly well.

Perhaps we have come to expect too much of chemical control on mixed farms and have tended to forget the wide range of effective and cheap husbandry methods we already have at our disposal. I think this is the crux of the matter; on mixed farms good husbandry can with some few exceptions control weeds more cheaply than, and as effectively as chemicals; the good farmer will tend to use chemicals as an adjunct to husbandry control, not as a substitute for it. I look upon chemical weed control as a useful aid to good management, not as a cover-up for bad farming.

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<u>WEEDS OF CROPS & NEW PASTURE & PASTURE & COCKSFOOT FOR SEED. (NOT IN ROWS)</u>	<u>H U S B A N D R Y C O N T R O L</u>		<u>C H E M I C A L C O N T R O L</u>	
	<u>I N G R O W I N G C R O P</u>	<u>B E F O R E C R O P S O W N</u>	<u>I N G R O W I N G C R O P</u>	<u>B E F O R E C R O P S O W N</u>
Fathen	Ineffective after crop 3-6" high	Cheap & effective	Outstandingly effective in grain crops	Unnecessary
Wild Turnip	Ineffective	Cheap & effective	Ineffective	Unnecessary
Wild Oats	Ineffective	Cheap & effective	Not practical where required with Brassicas	Unnecessary
Spurry	Ineffective	Expensive & effective	Ineffective	Unnecessary
Twitches	Ineffective	Expensive & partly effective	Temporarily effective in grain crops	Unnecessary
Californian Thistle	Ineffective			
<u>WEEDS OF OLD PASTURE</u>				
Twitches	Ineffective	-	Ineffective	-
Californian Thistle	Temporarily effective	-	Temporarily effective	-
Docks	Ineffective	-	Effective	-
<u>WEEDS OF HEDGEROWS AND WASTELAND</u>	Ineffective	-	Effective (mainly thistles)	-