

then complete their development the following spring. Of these may be mentioned Shepherd's Purse, Pepper grass, Penny Cross, mentioned above, and the Blue Bur.

BIENNIALS—Are those plants which require two seasons to complete their growth, the first being spent in collecting and storing up a supply of nourishment, which is used the second season in producing flowers and seeds. Examples of these are Burdock, Mullein, Evening Primrose and Viper's Bugloss or Blue-weed.

PERENNIALS—Are those plants which continue growing for several years. Perennial weeds are propagated in several ways, but all produce seeds as well. They have two distinct modes of growth, those which root deeply, and those of which the root system is near the surface. The most troublesome are those which extend long under-ground stems down beneath the surface of the ground, as Canada Thistle, Perennial Sow-thistle, Showy Lettuce, and wild Sunflowers. Representatives of the second class or shallow-rooted perennials are: Pasture Sage, Yarrow and Couch Grass. Some perennials extend but slowly from the root by means of short stems or offsets; but produce a large quantity of seed. Of these, Ox-eye Daisy, Dandelion, Golden Rod and Yarrow are examples.

In adopting a method of extermination, the nature of the plant to be eradicated must, first of all, be taken into consideration. Any method by which the germination of the seed in the soil is hastened and then the young plants are destroyed before they produce fresh seed, must in time clean land however badly infested with annual weeds. The seeds of some annuals have very great vitality, and will continue appearing for several years as fresh seeds are brought up to the surface by cultivation. Wild Mustard and Wild Oats have been known to germinate after lying deep in the ground for twenty years. Biennials must be either ploughed up or cut off before they flower. Mowing at short intervals will kill them; but a single mowing will only induce them to send out later branches, which, if not cut, will mature many seeds. Where ploughing is impracticable, this class of plants should be cut off below the crown of the root. For this purpose a spud or a large chisel in the end of a long handle (to obviate the necessity of stooping) is as convenient a tool as can be used. Perennials are by far the most troublesome of all weeds and require very thorough treatment, in some instances the cultivation of special crops, to ensure their eradication. Imperfect treatment, such as a single ploughing, frequently does more harm than good, by breaking up the underground stems and stimulating growth.

There is no weed known which cannot be eradicated by constant attention, if only the nature of its growth be understood. Farmers should be constantly on the alert to prevent new weeds from becoming established on their farms. There are some general rules which all should remember:—

- 1.—Weeds do great harm by robbing the soil of the plant food intended for the crop and also of its moisture.
- 2.—Weeds crowd out and take the place of more useful plants, being hardier and, as a rule, more prolific.
- 3.—Weeds are a source of great loss to farmers as they require much labour and time to eradicate, and frequently compel them to change the best rotation of their crops, or even perhaps to grow crops which are not the most advantageous.
- 4.—All weeds bearing mature seeds should be burnt, and under no circumstances should they be ploughed under.
- 5.—Weeds of all kinds can be eradicated by constant attention and by adopting methods in accordance with their nature and habits of growth: Therefore,
 - (a).—Never allow them to seed;