

Article

Types and Classification of The Most Common Cereal-Like Annual and Perennial Weeds in Unused Agricultural Lands

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Abstract: This article identifies and classifies the most common annual and perennial weeds on unused agricultural land. Identifying and controlling weeds growing on unused land is important, as they are the primary source of overwintering, reproduction, and development of pests and diseases.

Keywords: Weed, Cereal-Like, Annual, Perennial, Species, Classification, Unused Land

Introduction

All kinds of darnels grow on non-cultivated lands. The favorable climatic and soil conditions sustain viable germination and easy spread of the weeds there. Annual grass weed includes barnyardgrass, foxtail, ryegrass, green foxtail, sticky foxtail, wild oat and wild barley. Of the perennial grass weeds, johnsongrass and common reed are the most widely distributed [1].

These weeds represent a formidable threat to agricultural crops, which are competed for resources (organics and minerals nutrients, water and sunlight). As experience shows up to now, cultural measures do not lead to the total eradication of weeds. Hence, in addition to cultivation methods, effective herbicide and application technology that would achieve total weeds control are highly required [2].

Weeds are better adapted to poor soil and climatic conditions, and therefore they germinate earlier than the cultivated crop and consume more of the nutrients, water, and light. They impede efficient operations in the field and increase production costs. These noxious weeds also germinate

and mature in waste lands. It is important to control them, because they can spread to food crops field [4].

Research Methods

Herbarium method. Whole plant samples were collected (root, stem, leaves, flower/fruit) and dried before preserving them in a herbarium.

Comparative–morphological method. Descriptive characteristics were compared according to identification guides and keys, including Flora of Uzbekistan and Oprelitel sornykh rasteniy.

Use of taxonomic keys. The species were distinguished based on leaf arrangement, flower morphology, fruit type and root system.

Study of weed morphology. The morphology of weed it the external features of weeds were investigated and described. The main morphological characteristics included:

- Root type: tap root, fibrous or rhizomatous;
- Stem: full, prostrate, branched;
- Foliage: forms and types, margins, venation, arrangement (alternate or opposite);
- Flowers: bisexual or unisexual, actinomorphic or zygomorphic;简单花或苦泽花 2.
- Fruit and seed: fruit type (caryopsis, capsule, achene), number, size of seeds.
- Techniques utilised was visual observation, magnifier or microscope, photography and drawing.

Life cycle and population ecology.

Biological indicators included:

- Plant life-form: Annual or biennial or perennial;
- Propagation: it is multiplied by seeds or vegetatively (rhizomes, nodes);
- Observations of phenological phases: bud-burst, flowering, fruiting, senescence;
- Ecological demands: light, moisture and substrate type.

Field work was carried out and updated phenological calendar diary was recorded. The species were characterized, experimental plots established; data compiled and compared with other species; and the severity of ecoiomie damage under field conditions were recorded.

Bromus oxyodon. Annual grass. Stems: glabrous, or minutely pubescent; 30–90 cm high. Leaves are oblong-lanceshaped, flat, shortly hairy, 2–4 mm wide. Panicle is spreading with up to 25 cm long lateral branches. Spikelets are lanceolate, 6–16-flowered and 2–4 cm long. Flowers and fruits from April to June (IV–VI). Grows among rainfed crops. Discovered in all parts of the Republic.

Setaria glauca. Annual grass. Stem: Erect, slender, rough in the upper part, up to 50 cm high. Leaves broad-linear, longish, rough; bristles greyish. Grain oblong, c 2.3 mm long and nearly 2 wide. Primarily spreads by seed; one plant may produce up to 50,000 seeds per year. Seeds can germinate from a depth of 16–18 cm. Seeds remain viable up to 30 years. Minimum germination temperature 6–8°C, optimum 20–24°C. Flowers and sets seed from July to September (VII-IX). It grows in alfalfa fields and with crops. Widely distributed throughout the Republic.

Avena meridionalis. Annual grass. Stem erect, 40–100 cm tall. 8: Panicle up to 30 cm long; awn c. A single plant forms about 300-600 seeds. Seed viability lasts 2–5 years. Flower and fr: d'épiaison de mai à septembre (V–IX). Occurs among various crops. Scattered over all parts of the Re public.

Hordeum murinum. Annual grass. Base stem-like, base decreasing in diameter towards base. Leaves linear, flat, ±rough on the upper surface, sometimes hairy; 3–7 mm wide. Spikes lax to narrow, 6–13 cm long and 6–9 mm wide; linear; brittle; rigid-hairy on the ribs. Middle and lower spikelets are awn-like, inflated at base. Flowers and seeds from April to June (IV–VI). Cultivated in irrigated lands of cereal crops. Met from all parts of the Republic.

Digitaria ischaemum. Annual grass. Lower stem branched, spreading, 5–50 cm high. Leaves linear-lanceolate, 3–9 cm long, and 4–7 mm wide. Spikelets linear-lanceolate; lower glume minute. Each stem can make 5,000 seeds. The depth of germination is 5–6 cm. Viability is maintained for at least 4 years. The minimum germination temperature is 2–4°C, and the optimum temperature is 20–24°C) flowers and sets seed (June - September [VI-IX]). Cultivated among crops and in rice cultivation. Spread in every corner of the Republic.

Echinochloa crus-galli. Annual grass. Stem is much branched, attaining to 100 cm in height. The leaves are linear, the fruit a caryopsis. One plant produces 2,000–13,000 seeds. The seeds can germinate till a depth of 12 to 14 cm. The viability of seeds persists for three or up to four years. The minimum germination temperature is 4–6 °C (39–43 °F), and the optimum temperature 21–28°C. Flowers & seeds from June to September (VI-IX). Primarily in cotton, vegetable, muskmelon, alfalfa and rice fields. The inhabitant of all these is a citizen of the Republic.

Perennial Grass Weeds

Poa bulbosa. Perennial grass. Stem straight, branching copiously, glabrous, terete with a thick basal bulb; 10–50 cm high. Leaves short linear, twisted, glabrous; margins coarse. Panicle compactly or laxly contracted; branches scabrous, up to 6 mm. Spikelets 4–7-flowered, green or dark-colored. Flowers and seeds from April to July (IV–VII). Occurs in desert and foothill agricultural areas. In all the parts of the Republic.

Lolium perenne. Low, loose-tillered perennial grass. Leaves narrowly shaped and about 30 cm long or more, lower surface glossy and hairless (or sparingly ribbly hairy), rough above all over the veins, pale greenish. Inflorescence erect or somewhat pendulent, lax brown greenish spike. Tolerant to irrigation but not withstand prolonged flooding or a high water table. It is similarly hardy and spring-tolerant. Moderately humid climates with mild winters suit him. Wind-pollinated; however, self-pollination can result in a high seed set. Seeds lanceolate, grey, 5.5–6.5 mm long and 1–1.5 mm wide; face not strongly curved in on itself.

Sorghum halepense. Perennial rhizomatous grass. Stem erect, 1–2 cm in diam., 50–150 cm tall, glabrous. Propagates by seed and rhizomes. Fruit a caryopsis, 5–6 mm long, 2 wide and 1.5–1.7 mm thick. One plant produces 2,000–3,000 seeds. 7–8 cm deep seed germination; viability continues high for 4 years. Minimum temperature of germination 10–12°C; optimum 20–35°C. Flowers May-July (V-VII) and fruits July-September (VII-IX). A pest of cotton, cereals and vegetable crops. All parts of the Republic.

Cynodon dactylon. Perennial grass. Stem articulate, basally branched from the rootstock, 10–50 cm tall. Stoloniferous plant with subulate like leaves and palmate inflorescence the color of which is blue. Fruit a caryopsis, ovoid, compressed-triangular (wider than high), 3 mm long x 1 mm wide. Primarily reproduces vegetatively by rhizomes; one flowering plant can produce 1,000–2,000 seeds per season. Flowers and seeds from June to August (VI–VIII). It is also cultivated in areas such as irrigated cropfields, abandoned land and roadsides. Common in all parts of the Republic.

Cyperus rotundus. Perennial weed. Stem slender, erect, triangular, glabrous 15–20 cm tall. Propagates through seeds and tubers (rhizomes). Flower May–June (V–VI), and seeds July–September (VII–IX). Also found in cotton, rice fields and other crops. That they are spread over all parts of the Republic.

Conclusion

Weed management is one of the most important issues related to cultivation in any cropping system. Acquiring a knowledge on parameters such as the species of weeds, life cycle, methods of propagation and dissemination, seed dormancy and critical periods for crop–weed competition represent important elements in implementing sustainable weed control.

Weed species in non-agricultural lands and effectively controlling them is important. The aim of the present study was to identify different weed species growing on various non agricultural lands and control measures. These regions are also the main areas for pest and disease to overwinter, reproduce and develop. Weeds on such land are managed to prevent their dispersion into tilled agricultural fields.

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