

# MAJOR WEEDS IN LOWLAND RICE FIELD



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T. TSUBOI Rice Technical Advisor  
Promotion of Rice Development Project  
NaCRRI, NARO, Uganda

## *Cyperus iria* L.

### Common name

USA rice flatsedge

Japan kogomegayatsuri

**Type:** Annual sedge

### Characteristic:

Yellowish open flower.

Stems are slender and 20 to 60 cm long.

**Habitat:** lowland rice fields, open wet areas.

**Reproduction:** This weed reproduces from seeds.

Each plant may produce up to 5,000 seeds.

### Ecology:

The plant may rapidly spread because of its abundant seed production.

Can be very competitive for nutrients



## *Cyperus difformis* L.

### Common name

USA smallflower umbrella sedge

Japan tamagayatsuri

France souchet ptites fleurs

**Type:** Annual sedge



### Characteristic:

Flowers yellowish, very numerous, and crowded in ovoid masses.

**Habitat:** swamps, lowland rice fields

**Reproduction:** This weed reproduces from seeds.

Each plant may produce up to 50,000 seeds.

### Ecology:

The plant may rapidly cover the ground because of its short life cycle (make seeds one month after germination) and abundant seed production.

The weeds do not shade rice plants, but may compete for water and nutrients.

This weed cannot tolerate deep flooding, and may be controlled by water management.

## *Fimbristylis miliacea* (L.) Vahl

### Common name

USA globe fingerush

Japan hideriko

**Type:** Annual herb  
(occasionally perennial)



### Characteristic:

The plant is glabrous and about 60 cm tall.

Spikelets are 2.5 to 3.5 mm long, globose to ovoid and reddish brown.

**Habitat:** marshes, wetland rice fields

**Reproduction:** seeds

**Ecology:** Produces many seeds, which germinate throughout the year. Can become a dominant weed within a short time.

***Cyperus corymbosus* Rottboell**

**Common name**

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**Type:** Perennial sedge

**Characteristic:**

The plant spreads a long rhizome and forms communities.

Stems arise from rhizomes and are 1 to 2 m long, dull triangular and

3 to 4 red brown sheaths at the base. Inflorescence are terminal.

Spikelets are linear, 5 to 18 mm long and 10 to 15 spikelets arranged in clusters form a spike, 2 cm long. Stigma of floret has 3 lobes and scales are reddish brown.

**Habitat:** canals, lowland rice fields

**Reproduction:** rhizomes



***Fuirena ciliaris* (L.) Roxb.**

**Common name**

Japan kurotamagayatsuri

**Type:** Annual herb

**Characteristic:**

Stems are about 50 cm long.

The tip and upper nodes of the

stem bear 3 to 10 spikelets densely.

Spikelets are spindle-shaped and hairy.

**Habitat:** river banks, pond, grassland, lowland rice field

**Reproduction:** seed



***Scirpus articulatus* L.**

**Common name**

**Type:** Annual sedge (occasionally perennial)

**Characteristic:** Stems are 30 to 100 cm long

and upright, tussocky, open, cylindrical. Leaf blades are degenerated and transformed into yellowish brown leaf-sheaths. Oblong spikeletes are arranged in clusters.

**Habitat:** marshes, irrigation canals, lowland rice fields

**Reproduction:** seeds

**Ecology:**



***Echinochloa crus-galli* (L.) P. Beauv.**

**Common name**

USA barnyard grass

Japan inubie

France panic, pied-de-coq

**Type:** Annual grass

**Characteristic:**

Culms are branched, erect or decumbent at the base and 20 to 250 cm long.

Spikelets are 5 to 18 cm long, with many rachis-branches and conical.

**Habitat:** lowland rice fields

**Reproduction:** seeds

**Ecology:** One plant may produce 40,000 seeds. Tillers profusely and germinates throughout the year. Ecologically similar to rice. During early vegetative phase, almost indistinguishable from rice plants.



## *Echinochloa colonum* (L.) Link

### Common name

USA jungle rice

Japan wasebie

France ble de dekkon



**Type:** Annual grass

### Characteristic:

Culms are glabrous, branched and creeping at the base, and 20 to 80 cm long.

Foliage is soft and purplish in the lower part.

Spikelets are 5 to 15 cm long and do not hang down at ripening.

**Habitat:** upland fields, lowland rice fields



**Reproduction:** seeds

**Ecology:** The species are pleiomorphic and display wide variations. A prolific seed producer; has a short life cycles and can complete several life cycles in a year.

Young plants resemble rice, which makes hand weeding difficult.

## *Typha angustifolia* L.

### Common name

USA narrowleaf cattail

Japan himegama



**Type:** Perennial herb

### Characteristic:

The plant is 1 to 2.5 m tall.

Leaf blades are linear, glabrous, narrow and obtuse at the tip and enclosing the stem as a sheath at the base.

Flower stalks arise and bear male flowers at the top and female flowers a little below.

**Habitat:** shallow water of marshes and ponds.



**Reproduction:** Fragments of subterranean stems and seeds

**Ecology:** In some areas, pollen and stems are edible and also used as material for mats.

***Paspalum distichum* L.**

**Common name**

USA knotgrass,

Japan kishuusuzumenohie



**Type:** Perennial grass

**Characteristic:**

Stems are prostrate at the base and rooting at the nodes.

Leaves enclose the stem at the base to become sheaths and the upper margin of the sheath is covered with white hairs.

Short panicles are dichotomously terminal and spikeletes are borne in 2 rows externally.

**Habitat:** river banks, creeks, ponds, lowland rice fields

**Reproduction:** fragments of stolons and seeds

**Ecology:** The plant invades rice field to become weed, especially in direct-seeded rice fields.

Control by hand weeding.

Control is very difficult because the plant grows fast.

***Cynodon dactylon* (L.) Pers.**

**Common name**

USA bermuda grass,

couch grass

Japan gyougishiba



**Type:** Perennial grass

**Characteristic:**

Stems are branched, prostrate and spreading on the ground.

Culms are 15 to 40 cm long.

Spikes are terminal and fingerlike.

Rachises have 3 to 7 branches and 3 to 8 cm long.

**Habitat:** roadsides, grasslands, upland fields, lowland rice field.

**Reproduction:** seeds

**Ecology:**

It is used as a native medicine for cough and kidney diseases.

## *Ischaemum rugosum* Salisb.

### Common name

USA winkle duck-beak,  
saramattagrass  
Japan taiwan aiashi

**Type:** Annual and  
occasionally perennial

### Characteristic:

Stems are branched at the base  
and 60 to 120 cm long.  
Spikes are dichotomously branched and 3 to 12 cm long.  
Two spikelets arise from each node and they are  
pale yellowish green.

**Habitat:** canals, ponds, lowland rice fields

**Reproduction:** seeds

**Ecology:** It is a troublesome weed in paddy fields, especially in the  
direct-seeded rice fields.

Young foliage is used as forage for livestock.



## *Nymphaea nouchali* Burm. f.

### Common name

USA lotus lily, water lily  
Japan urasaki suiren

**Type:** Perennial aquatic  
plant

### Characteristic:

Leaves with a long petiole arise  
from tuber in the ground and float on the water surface.  
Flowers are 8 cm in diameter and fragrant.

**Habitat:** canals, ponds, lowland rice fields

**Reproduction:** seeds and tubers

**Ecology:** The plant grows into stagnant water 0.1 to 2.5 m deep.  
It is tolerant to a wide range of water pH condition.



***Sagittaria guayanensis* H.B.K.**

**Common name**

USA arrowhead-lily  
Japan nanyou omodaka

**Type:** Perennial aquatic herb



**Characteristic:**

Leaf blades float on the water surface and are ovate and rotundate at the tip. Long scapes emerge from the base and bear 2 to 3 white flowers.



**Habitat:** reservoirs, lakes, canals, lowland rice fields

**Reproduction:** seeds

***Marsilea crenata* Presl**

**Common name**

USA water clover,  
clover fern  
Japan nangoku denjisou

**Type:** Perennial fern



**Characteristic:**

Rhizomes are slender, bristled, prostrate near the soil surface and branched. Leaves arise from rhizomes up to the water surface.

**Habitat:** canals, ponds, marshes

**Reproduction:** rhizomes and spores

**Ecology:** It grows fast in rice fields, especially, rice plants are planted in sparsely because of the favourable light condition.

***Pistia stratiotes* L.**

**Common name**

USA water lettuce

Japan botan ukikusa

**Type:** Free-floating perennial hydrophyte



**Characteristic:**

Leaves are yellowish green and form rosettes.

The plant has a large amount of feathery roots in water.

Flowers are bisexual, with a short peduncle in the center of the rosette of the leaves and are not conspicuous.

**Habitat:** ponds, reservoirs, creeks, lowland rice fields

**Reproduction:** vegetative offshoots connected by stolons and seeds

**Ecology:** The plant is tolerant to acidic environments (pH4).

***Azolla pinnata* R. Br.**

**Common name**

USA azollz, water fern

Japan aka ukikusa

**Type:** perennial floating fern

**Characteristic:**

Foliage changes from green to reddish purple with the season. Stems are thick and pinnately branched. Small scale-leaves are opposite arranged in two rows and 1 to 1.5 cm long.

**Habitat:** ponds, reservoirs, creeks, lowland rice fields

**Reproduction:** vegetatively

**Ecology:** Nitrogen-fixing blue green algae are symbionts in the cavity under the scale-leaves.

The plant is used as green manure. When the plant covers the water surface of the lowland rice fields, fertilizer nutrients are consumed and rice plant undergo lodging.



## *Commelina diffusa* Burm. f.

### Common name

USA common spiderwort

Japan shima tsuyukusa



**Type:** Annual or perennial herb

### Characteristic:

Stems are glabrous, smooth, 40 to 100 cm long.

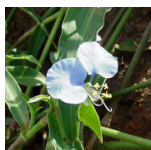
Leaves are linear-oblong and dark green.

The plant display morphological variation in the presence of hairs and shape of leaves.

Inflorescence which arises from the leaf axil bears several flowers.

**Habitat:** upland fields, levees of lowland rice fields

**Reproduction:** seeds



## *Commelina benghalensis* L.

### Common name

USA dayflower,

bengal spiderwort

Japan maruba tsuyukusa



**Type:** Annual or perennial herb

### Characteristic:

Stems are 40 to 100 cm long, with many branches, prostrate and rooting at the nodes.

Flowers are 1.5 to 2 cm in diameter.

There are 3 petals and the upper two are 5 mm in diameter ultramarine colour. Capsules, about 1 cm long contain 3 to 5 seeds.



**Habitat:** upland field, levees of wetland rice fields

**Reproduction:** seeds

**Ecology:** It is an alternate host of some pathogens and nematodes.

## *Ipomoea aquatica* Forsk.

### Common name

USA water convolvulus,  
swamp morning glory  
Japan akabana yousai



**Type:** Annual or perennial  
vine herb

### Characteristic:

Stems are fistulose, spread over the ground or floating on water and rooting at the nodes.

Leaves are alternate, with morphological variations, usually long hastate.

Flower stalk arises from the leaf axil and bears 1 to several flowers. Flowers are funnel-shaped, 4 to 5 cm in diameter and white to purple in colour.

**Habitat:** canals, ponds, marshes, lowland rice fields

**Reproduction:** stem fragments and seeds

**Ecology:** In many countries, the plant is cultivated in the fields and used as a vegetable for Chinese dishes.

## *Ipomoea cairica* (L.) Sweet

### Common name

USA ivy-leaved morning  
glory, railway creeper  
Japan momiji hirugao,  
taiwan asagao



**Type:** Perennial climber

### Characteristic:

Stems are glabrous or hairy at nodes, prostrate on the ground or creeping.

Leaves have a long petiole, are alternate, palmately divided into 5 to 7 parts.

Flower stalk, 1 to 8 cm long, arises from leaf axil and bears 1 to several flowers.

Flowers are funnel-shaped, about 5 cm in diameter, usually bluish purple or white colour.

**Habitat:** wasteland, levees of lowland rice fields

**Reproduction:** seeds

**Ecology:** The plant produces flowers throughout the year.



## *Sphenoclea zeylanica* Gaertn.

### Common name

USA gooseweed

Japan nagabono urushi

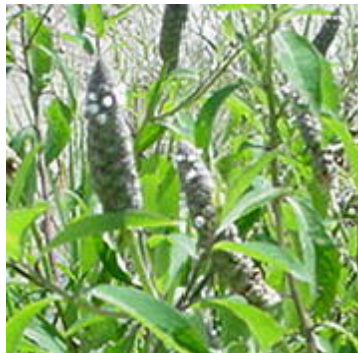


**Type:** Annual herb

### Characteristic:

Stems are erect, branched and exude a milky sap from the cut surface. Long flower stalks arise from the tip of stem or at the node, and bear green and conical inflorescence at the end.

Inflorescence is about 7.5 cm long.



**Habitat:** canals, ponds, lowland rice fields, upland fields

**Reproduction:** seeds

**Ecology:** In lowland rice fields, it causes major damage and is one of the important weeds of rice.

## *Ludwigia octovalvis* (Jacq.) Raven

### Common name

Japan kidachi kinbai



**Type:** Perennial herb

### Characteristic:

Stems are irregularly ridged, branched and up to 75 to 150 cm long.

Leaves are narrow lanceolate, with a short petiole and alternate.

Flowers are solitary on the axil, 3 to 4 cm in diameter with 4 petals and yellow.



**Habitat:** wet area such as edge of ponds, lowland rice fields

**Reproduction:** seeds

***Eclipta prostrata* L.**

**Common name**

USA eclipta, false daisy

Japan takasaburou

France eclipte droite,

**Type:** Annual herb



**Characteristic:**

Stems are 20 to 90 cm long.

Leaves are opposite, 3 to 10 cm and 5 to 25 mm wide.

Flowers heads are about 1 cm in diameter.



**Habitat:** lowland rice fields, marshes, levees

**Reproduction:** seeds

***Enhydra fluctuans* Lour.**

**Common name**

Japan mumakikuna

**Type:** Perennial herb



**Characteristic:**

Stems are cylindrical, prostrate on the ground, rooting at the node.

The plant is 50 to 60 cm tall. Leaves are sessile, opposite, 5 cm long, 1 cm wide, lanceolate, with an acute tip and sparsely crenate.

Sessile flower heads, 1 cm in diameter, arise from the leaf axil.

**Habitat:** lowland rice fields,

**Reproduction:** seeds

**Ecology:**

Young parts of the plant are edible and leaves are used as a medicine.

***Ceratopteris thalictroides* (L.) Brongn.**

**Common name**

USA water sprite  
Japan mizu warabi,  
mizu shida,

**Type:** Annual or  
occasionally perennial



**Characteristic:**

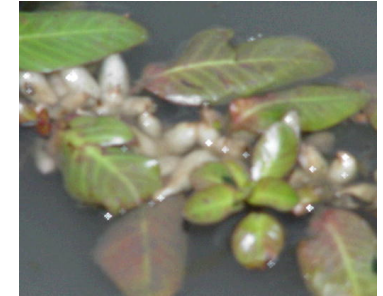
Rhizome is short and aerial part is ascendent.  
Leaves are fasciculate, soft and the petiole has 4 ridges.  
The plant is 10 to 100 cm tall.  
Ordinary leaves are sporophylls can be distinguished.

**Habitat:** canals, ponds, lowland rice fields

**Reproduction:** spores and adventitious buds formed at the furcate part of pinnate leaf

**Ecology:** Young plant is edible as a vegetable.

***Eichhornia natans***



***Typha australis***



*Mariscus longibracteatus*



*Nymphaea lotus*



Weeds, name not identified



