
River Refuge



Seed Company LLC

PLANT IT AND THEY WILL COME



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River Refuge Seed Company

26366 Gap Road

Brownsville, Oregon 97327

SPRING 2024

About River Refuge Seed

Our family's long time passion for waterfowl hunting led us to be avid proponents of wetland conservation. In the 1980's we began to investigate ways to protect and enhance wetlands as well as be a productive farm. Our search led us to an OSU professor who suggested that Oregon had the potential to successfully grow wild rice. We became the first farm to commercially grow wild rice here in Oregon. It was very evident that wild rice was a favorite among the geese and ducks and soon after we started experimenting with other crops. Through trial and error, and even going as far as opening gizzards after each hunt, we began to learn what crops waterfowl preferred for feed. Check out our **Wild Rice—Duck Candy** article for more details on why we got started in this business and how we were able to move a local flyway after we started growing wild rice. www.RiverRefugeSeed.com/wild-rice-article

We have expanded the marshy areas, over the years, to encompass about 700 acres here in the Mid-Willamette Valley of Oregon that not only produce many varieties of wetland plants but are home to hundreds of nesting birds and a resting area for thousands of migrating waterfowl. In addition, we run a hunt club. Our harvested fields, when flooded, provide excellent hunting for duck and geese during the waterfowl season. Visit our website to take a virtual tour of our ponds from a bird's eye view. www.RiverRefugeSeed.com/videos

We are proud to be a multigenerational family-run farm that seeks to help our customers be successful in growing quality feed. There are many resources on our website you can refer to for information but we are always happy to answer your questions by a good old fashion phone call.



~ Cover Photo Story ~

Great-granddaughter, Lia, who turned 11 last year, worked hard at studying for her hunter safety test. When she passed, she could hardly wait for the duck hunting season to approach. Her dad, Chris, took her out for her fist shoot and at the first opportunity, she brought down this beautiful drake Pintail and was all smiles from then on. We are all very proud of her.

Instructional Videos

View all of our videos at www.RiverRefugeSeed.com/videos

HOW TO BUILD A DUCK HUNTING POND

Over the last 30 years, we have constructed over 150 ponds. This video will give you all of the information you need to build your very own hunting pond.



HOW TO BUILD GOOSE ISLANDS



Adding an island to your pond is a great way to give geese a safe place to nest. We have some tips in this video on how to successfully build one.

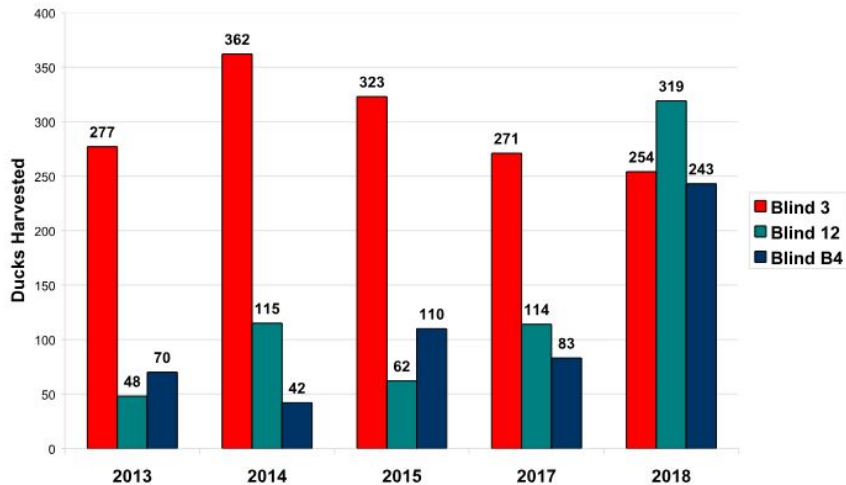
HOW TO PLANT WILD RICE

Planting Wild Rice can seem like a daunting task. Use this video for a great visual to help answer all of your questions on how to plant it in both the fall (drained pond) and spring (flooded pond).



Wild Millet Success Story

Umatilla National Wildlife Refuge
Duck Harvest



Duck hunters who are regulars at the Umatilla National Wildlife Refuge know which blinds are historically the best producers, and select those first with low reservation draw numbers. Typically, Blind 3 is the first one gone from the board each day; its duck harvest is the greatest. Recently, Oregon Duck Hunters Association supported a program to plant wild millet in wetlands surrounding a few of these blinds on a trial basis to see if birds would be attracted to those areas and provide better hunting. Blind 12 and Blind B4 were planted in the summer of 2018 and the duck response has been very impressive.

The chart above shows the duck harvest from opening day through November 25 (the latest day for which data is available) for the last five years (2016 data is missing), comparing Blind 12 and Blind B4 to Blind 3, the benchmark for good shooting. The blinds with wild millet are shooting just as well now. Based on this success, ODHA will support another round of wild millet planting at Umatilla for future seasons.

Waterfowl Attracting Crops that Grow in Wet Areas

Duck's Top Choices

Wild Millet / Watergrass / Barnyardgrass **\$3.65 /lb**
(*Echinochloa crus-galli*)



Wild Millet is a reseeding annual. It grows from 1-5 feet tall depending on soil conditions, moisture, and length of growing season. It can produce as much as 2,500 lbs/acre. Most seed shatters from the seed heads by fall. The fall coolness doesn't allow it to sprout until the following spring when it begins to warm.

It either remains on the ground, in water, or is consumed by birds rather than germinating. Therefore, it will volunteer year after year. It won't germinate when under more than 1/4" of soil or 4" of water. As the water recedes, it will sprout both in the shallows and in the mud.

Wild Millet is one of the best waterfowl attractors. It is the most important food raised on most state operated waterfowl management areas in California. It is also planted extensively by US Fish and Wildlife on most new projects in Western Oregon. Wild millet will mature on just a couple of irrigations in 60 to 80 days. In Western Oregon or Washington, the Midwest, East and South, even on only fair soil, it will mature with no irrigation. In the Willamette Valley of Oregon, we try to plant in the first 2 weeks of May. We have planted as late as July 15th and had the plants still make seed. We've also watched it continue to make seed even after we begin to flood the hunting ponds in September. Generally, if you have good moisture, the earlier you plant, the larger your seed crop. East of the Cascades or Sierras requires the same basic farming methods. Watch that you have a growing season that is long enough; 80 days is best.

Geese do not love wild millet, ducks do. Ducks do not enter the fields as readily when dry as when flooded, so seed harvested by them can be partly controlled by water manipulation. They will, however, feed out into the dry field from an open wet area. Ducks will usually concentrate on a flooded field of wild millet for a week or two and then desert it for another pond for a few weeks, only to return and rework the first one. Grows well with American Sloughgrass and Smartweed. Plant 25 lbs/acre less than 1/2" deep.

Waterfowl Attracting Crops that Grow in Wet Areas

Duck's Top Choices

Pennsylvania Smartweed

(Polygonum pensylvanicum)

\$17.40 /lb

Ask about our quantity discount prices



This **native** annual, grows 1-4 ft. It readily reseeds year after year and produces a huge amount of seed which waterfowl love when flooded. It grows in a few inches of water and thrives in areas where water recedes in late spring. It grows best in marshy ground and does not like droughty hard ground or water that is too deep. It can be grown with overhead or flood irrigation. If flooded, the water should be drawn off quickly. The larger the plants, the longer the water may stay on.

Smartweed seed is extremely hard. In its wild state, the seed shatters from the plant and, because of its hardness, lays dormant for the winter. During the winter the waterfowl consume some, and most of the rest of the seed breaks dormancy and sprouts as the ground warms and the water over it recedes in the spring. The seed you buy from RRS has been put through a "scarifier" multiple times. The machine scratches the hard seed coat, mechanically breaking dormancy and allowing the seed to be planted in the spring. Even after this process, some seed may not sprout until the following year. Also, unlike wild millet, corn or buckwheat, smartweed may take 2 to 4 weeks to sprout. Plant shallow 1/4"-1/2" & 15-20 lbs/acre. Matures in 60-80 days. Grows well with American Sloughgrass and Wild Millet.



Prostrate Smartweed

(Polygonum aviculare)

\$19.00 /lb



This introduced smartweed subspecies will grow anywhere in the US that has at least a 65 day growing season. Because of its short growing season, it is particularly acclimated to the high plains where other varieties will not do well. Plant 15-20 lbs/acre at 1/4"-1/2" deep.

Other Mixes

#16

Dike / Berm Mix

50% Annual Ryegrass / 30% Creeping Red Fescue /
10% Creeping Bentgrass / 10% Shortawn Foxtail

This mix is ideal for covering dikes, levees, berms and any other ground surrounding your impoundments. This blend of grasses creates a quick growing mat that stabilizes the top soil and helps prevent erosion from periodic overflows. Plant at a rate of 1 lb per 1,000 square feet at 1/4" deep.

Special Price **\$7.85 /lb**

#17

Big Buck Deer Mix (SPRING PLANT)

Small Burnet / Annual Ryegrass / Early Spring Pea / Clover /
Brassica / Lupine / Turnip / Short Corn / Poco Barley

These spring and fall mixes supply an abundance of high protein. The deer will browse the tender shoots through the summer and most plants included will last into the fall and winter depending on climate severity. The plants that do go dormant during winter will come back the following spring and produce a bounty of fresh shoots. Included in these mixes is the coveted Delar Small Burnet. Known to many as nature's deer candy, Delar Small Burnet has a sweet melon/cucumber odor and taste that keep the deer coming back. 25 lbs will plant approximately 1 acre for both mixes.

1 lb \$3.95
5 lbs \$16.95
Special Price **25 lbs \$79.50**

#18

Big Buck Deer Mix (FALL PLANT)

Small Burnet / Annual Ryegrass /
Hard Pea / Poco Barley /
Perennial Ryegrass / Turnip



1 lb \$3.25
5 lbs \$13.50
Special Price **25 lbs \$49.95**

Waterfowl & Upland Seed Mixes

#12 50% White Proso Millet / 50% Sudangrass

These two grasses compliment each other—Proso low growing/Sudan tall. Flood for waterfowl or leave dry for Upland. Plant annually after last frost. Will grow west of Cascades with no irrigation. Plant 25 lbs/acre at 1”- 1 1/2” deep.

Special Price \$0.95 /lb

#13 50% Poco Barley / 50% Early Spring Pea

This mix is a 50/50 blend of our two quickest maturing species, each reaching maturity in just 60 days. This makes it an excellent choice for higher elevation areas that have shorter growing seasons. This mix can be planted on average soil as long as good soil moisture is available. Plant 100 lbs/acre at 1”- 1 1/2” deep.

Special Price \$1.45 /lb

#14 Native Shallow Water Mix 60% Water Plantain / 30% Western Mannagrass 5% Wapato / 5% Bur-reed

This mix is ideal for shallows up to 12” deep in marshes, swamps, streams and ponds. Each one of these native perennial species will sprout under and grow up through the water. These plants provide great habitat and the waterfowl devour the seed heads, foliage and tubers. Planting can be done by broadcasting seed directly in to water or on to open mudflats at a seeding rate of 15-20 lbs/acre.

Special Price \$19.95 /lb

#15 Brackish Water Waterfowl Mix 35% Wild Millet / 20% American Sloughgrass / 20% Pennsylvania Smartweed / 10% Swamp Timothy / 10% Lambsquarters / 5% Alkali Bulrush

This mix of reseeding waterfowl favorites can be grown in seasonally flooded areas that deal with mild to moderate brackish water conditions and alkaline soils. A great option for brackish marshes such as the Suisun Marsh. Plant 20-25 lbs/acre at 1/4” deep.

Special Price \$13.95 /lb

Waterfowl Attracting Crops that Grow in Wet Areas

Duck's Top Choices

American Sloughgrass (*Beckmannia syzigachne*)

\$16.50 /lb



Beckmannia syzigachne, commonly known as American Sloughgrass, is a **native** wetland bunchgrass that grows well in winter ponded, wetland and riparian areas. This wetland perennial is an aggressive reseeder that produces an abundance of seed, up to 240,000 seeds per lb. The seed does not shatter readily, which makes it a good crop to plant if you want your feed to last longer. It is a great option for anyone looking for an easy to grow native wetland crop that provides excellent habitat and feed for waterfowl. Plants will reach maturity in 60-80

days. It is a very versatile wetland crop that can be planted in many wetland conditions in both spring and fall at a rate of 12 to 15 lbs per acre. Planting

can be done either by drilling the seed 1/2” to 3/4” in to the ground or by simply broadcasting the seed on to open mudflats.



- OFTEN AFTER SPROUTING, WILL GROW THROUGH SHALLOW WATER
- A PERENNIAL THAT WILL ALSO READILY RESEED
- PRODUCES LOTS AND LOTS OF PALATABLE SEED



Waterfowl Attracting Crops that Grow in Wet Areas

Ducks Top Choices

Wild Rice

(Zizania palustris)



Spring \$6.95 /lb Fall \$6.25 /lb

Prices are for wild rice seed picked up at our warehouse. For shipping included prices call us at [541-466-5309](tel:541-466-5309) or visit our website www.RiverRefugeSeed.com/wildrice-pricing

Nothing attracts waterfowl better than Wild Rice! This **native** is an aquatic grass that grows in water 8-36" deep. It produces more than 2,000 lbs of seed per acre and readily reseeds itself. It can mature in permanently flooded ponds or seasonal wetlands, provided there is water into July. Grows best with good water control. Plant 50-100 lbs/acre.

For planting instructions, make sure to watch our step-by-step video at www.RiverRefugeSeed.com/videos. You might also be interested in reading our **Wild Rice—Duck Candy** article where we talk about how growing wild rice helped us to move a local flyway. There are also some great tips for the dos and don'ts we have learned over the years in growing wild rice. You can find this in our article section under our media tab.

Since Wild Rice needs to remain wet or at least damp from harvest to planting, it will not feed through a drill. It is best planted using a broadcast spreader or to broadcast it by hand. Make sure to plant within a few days from when you receive your seed.



Waterfowl & Upland Seed Mixes

#8 **NEW 50% Golden Millet / 30% Wild Millet 20% Pennsylvania Smartweed**

Golden Millet has tall visible seed heads that hold their seed and remains standing while wild millet and smartweed seed heads shatter under the straw which keeps the ducks coming back. Plant 25 lbs/acre at 1/2" deep.

Special Price \$5.95 /lb

#9 **80% Wild Millet / 20% Swamp Timothy**

This mix is an excellent blend of two waterfowl favorites that are easy to get established in seasonally flooded areas and provide such an abundance of seed that they readily reseed themselves year after year. These two species complement each other nicely as the Wild Millet grows tall, up to 6', the low growing Swamp Timothy fills in the understory creating a layering of feed that keeps the birds coming back. Plant 10-12 lb per acre at 1/4" deep.

Special Price \$12.50 /lb

#10 **50% Wild Millet / 50% White Proso Millet**

This mix works well in areas that won't be flood irrigated. When flooded for hunting, the birds will feed on the standing proso first. As that is eaten, they will forage in the down straw for weeks, cleaning the Wild Millet. The Wild Millet will volunteer the following year. Plant 25 to 35 lbs/acre at 1/2" deep.

Special Price \$2.25 /lb

#11 **70% Wild Millet / 20% Swamp Timothy 10% Smartweed**

California Waterfowl Association Top 3 Feeds

Arguably the top three wetland waterfowl food sources on the west coast, this mix is an ideal blend of high yielding, easy growing, and readily reseeding wetland annuals that give waterfowl a nice variety of feed. Plant 10-12 lbs/acre at 1/4" deep.

Special Price \$13.75 /lb

Waterfowl & Upland Seed Mixes

#4 Moist Soil Management Mix

28% Water Plantain
25% Wild Millet
10% Western Mannagrass
10% Pennsylvania Smartweed
10% Meadow Barley
10% American Sloughgrass
5% Shortawn Foxtail
2% Wapato

This is a mix that produce an abundance of feed. Using the moist soil management techniques, you can draw your water down at the best time to stimulate growth. All of the species in this mix perform well with each other and will produce lots of waterfowl attracting feed. Plant 15 to 20 lbs/acre at 1/4"-1/2" deep.

Special Price \$15.95 /lb

#5 60% Wild Millet / 40% American Sloughgrass

Both produce a ton of good edible seed. Both can grow in water and will give you multiple years without replanting. Plant 20 lbs/acre at 1/2" deep.

Special Price \$7.95 /lb

#6 60% Western Mannagrass / 40% American Sloughgrass

These are both perennials. They both produce lots of seed. The manna, when mature, will be the first long green grass floating on the water in late December. These are some of the only grasses, that once established, can thrive under water for the winter. Both produce great natural habitat for the invertebrates that the ducks love in addition to seed. Plant 15 to 20 lbs/acre on the surface to 1/2" deep.

Special Price \$13.50 /lb

#7 50% Poco Barley / 50% Buckwheat

They have a short growing season of 8 to 10 weeks. Plant dryland then flood when ripe or plant adjacent to hunting ponds. Plant 75 lbs/acre at 1"- 1 1/2" deep.

Special Price \$1.45 /lb

Waterfowl Attracting Crops that Grow in Wet Areas

Ducks Top Choices

Swamp Timothy (*Crypsis schoenoides*)

\$49.75 /lb



This annual wetland grass is a waterfowl favorite especially in the wetlands of California. Swamp timothy can grow in many different conditions but prefers seasonally flooded wetlands. The plants are prolific seed producers that can yield over 1,000 lbs of seed per acre and at

over one million seeds per pound; swamp timothy readily reseeds itself year after year. Swamp timothy can also handle moderate salinity making it a great option for areas that deal with brackish water conditions. Planting can be done by broadcasting into wet areas in the spring and early summer or by broadcasting/drilling into a worked seed bed that can be irrigated. Plants will reach maturity in 70-90 days. Plant 3-5 lbs/acre at 1/4" deep.

9 80% Wild Millet / 20% Swamp Timothy

This mix is an excellent blend of two waterfowl favorites that are easy to get established in seasonally flooded areas and provide such an abundance of seed that they readily reseed themselves year after year. These two species compliment each other nicely as the Wild Millet grows tall, up to 6', the low growing Swamp Timothy fills in the understory creating a layering of feed that keeps the birds coming back. Plant 10-12 lbs/acre at 1/4" deep.

Special Price \$12.50 /lb

#11 70% Wild Millet / 10% Smartweed / 20% Swamp Timothy

California Waterfowl Association Top 3 Feeds

Arguably the top three wetland waterfowl food sources on the west coast, this mix is an ideal blend of high yielding, easy growing, and readily reseeding wetland annuals that give waterfowl a nice variety of feed. Plant 10-12 lbs/ acre at 1/4" deep.

Special Price \$13.75 /lb

Waterfowl & Upland Bird Attracters

Grow on dry ground. Leave dry for upland birds or flood when ripe for waterfowl

Golden Millet

\$3.45 /lb



This millet, similar to Japanese Millet, produces more than a ton of seed per acre. Unlike Wild Millet, the seed head holds together into the season. It will grow dryland in most areas but where very dry, would like a couple of irrigations. Golden Millet and Wild Millet can be planted together and complement each other well. They can both be

flood irrigated and with their varying heights provide a nice layer of feed. The picture to the right shows a comparison of Wild Millet, on the left, and Golden Millet, on the right. Matures in 90 – 120 days. Plant 25 to 30 lbs/acre at 1/2" deep.



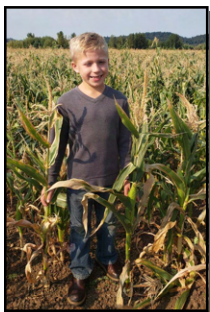
#8 NEW 50% Golden Millet / 30% Wild Millet 20% Pennsylvania Smartweed

Golden Millet has tall visible seed heads that hold their seed and remains standing while wild millet and smartweed seed heads shatter under the straw which keeps the ducks coming back. Plant 25 lbs/acre at 1/2" deep.

Special Price \$5.95 /lb

Short Corn

\$4.95 /lb



Short Corn grows 3 to 5 ft tall. Our short field corn has a 60 to 70 day maturity depending on area. It produces ears 8" to 15" from the ground. With ears this low, 6" to 8" of flooding has it at eye level for the ducks. In Western Oregon, in an average year planted in good to average ground, it will mature with no irrigation in 60-70 days. We typically plant June 1st and expect mature ears by early August. Plant 20-25 lbs/acre at 1 1/2"-2 1/2" deep.

Waterfowl & Upland Seed Mixes

#1 60% Wild Millet / 40% Pennsylvania Smartweed

Here are two of the puddle duck's favorites in a mix at a special price. They are similar as they both have hard seeds that can be submerged but they last into the winter without sprouting or rotting. When flooded, the ducks will forage through the wet straw to find the seed that has shattered from the seed head. This mix is easy to grow and produces a ton of seed. The ducks will always leave plenty of seed so it will volunteer year after year. Plant 20-25 lbs/acre at 1/4" deep.

Special Price \$7.95 /lb

#2 60% Wild Millet / 10% American Sloughgrass 30% Pennsylvania Smartweed

This is a good mix of reseeders. They all thrive in damp marshy ground or will grow on average soil with little or no irrigation. They produce lots of seed. Flood in fall to attract all waterfowl. Plant 15-25 lbs/acre at 1/4"-1/2" deep.

Special Price \$7.95 /lb

#3 40% Western Mannagrass / 35% American Sloughgrass / 25% Shortawn Foxtail

This mix of native perennials grow from 1 to 3 feet tall. These species like to be planted in areas that stay underwater for most of the winter and can stand to be inundated even into the late spring or early summer. The mannagrass is one of the first plants to have grassy leaves floating in the waters surface as early as late December. The foxtail, and American Sloughgrass soon follow as the water recedes and becomes shallower. During this early period, invertebrates and crustaceans thrive on the submerged leaves. This becomes a great waterfowl attractor. By mid summer the seeds shatter from the heads and fall into the vegetation. As it floods in the fall, ducks love to forage for these seeds and once again for the invertebrates that inhabit the wet matted straw. This mix can be managed to attract waterfowl year after year. Plant 20 lbs/acre at 1/4" deep.

Special Price \$15.75 /lb

Other Plants to Attract Wildlife

Wet Prairie Sunflower

(*Helianthus annuus*)



This **native** grows 3-6 feet. These showy yellow multiple bloom flowers provide feed and cover for doves, quail, and pheasant. Grows well on both sides of the Cascades and will reseed. Tolerates some frost and is drought resistant. Plant in the fall for spring sprout, or it can be planted in early spring, as young plants will withstand some frost. Plant 10-15 lbs/acre at 1/2"-1" deep. 80-100 days to mature.

Limited Supply

\$35.50 /lb

Small Burnet

(*Sanguisorba minor*)

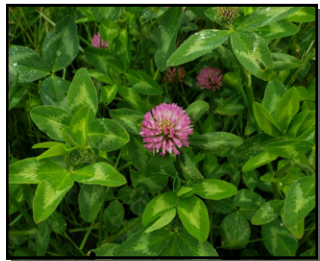


Grows to 2 feet. A winter-hardy perennial forb. It grows in rich or poor soils, stays green in the winter and produces an abundance of seed in the fall. Upland birds consume the seed and the foliage is adored by deer. It is sometimes called "deer candy". Can be planted in the spring or fall. Plant 20-25 lbs/acre at 1/2"-1 1/2" deep.

\$5.75 /lb

Red Clover

(*Trifolium pratense*)



This is a perennial legume that is great for deer browse. Plant by itself or mixed with Small Burnet. In the Pacific Northwest it will stay green all winter. It creates good nesting cover for upland birds. Plant 2-4 lbs/acre at 1/4" deep.

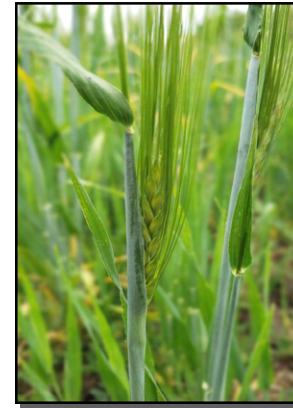
\$4.65 /lb

Waterfowl & Upland Bird Attracters

Grow on dry ground. Leave dry for upland birds or flood when ripe for waterfowl

Poco Barley

\$0.99 /lb



This is a short season, spring planted barley. It grows an average of 12" to 15" tall. It works well planted around ponds or can be planted in dry ponds and then flooded. Because it is so short, when planted around your ponds, the ducks will feed in it dry as they can see over it while feeding.



GREAT SHORT SEASON OPTION

Our Poco Barley, planted in Western Oregon on June 1st and using no irrigation, was ripe August 10th. Plant 100 lbs/acre at 1"-1 1/2" deep.

Buckwheat

(*Fagopyrum esculentum*)



A fast growing annual maturing in 10-12 weeks. It's a good seed producer that waterfowl love and can be planted late in summer when its too late for any other seed crop. Plant 50 lbs/acre at 1"-1 1/2" deep.

\$1.65 /lb

#7

50% Poco Barley / 50% Buckwheat

They have a short growing season of 8 to 10 weeks. Plant dryland then flood when ripe or plant adjacent to hunting ponds. Plant 75 lbs/acre at 1"-1 1/2" deep.

Special Price \$1.45 /lb

Waterfowl & Upland Bird Attracters

Grow on dry ground. Leave dry for upland birds or flood when ripe for waterfowl

White Proso Millet

(Panicum miliaceum)

\$0.95 /lb



Grows 1-4 feet. This is a huge seed producer. Plant in May or June then flood in the fall for waterfowl or leave standing dry for doves and other upland birds. Plant 25 lbs/acre at 1" to 1 1/2" deep. Maturity typically takes 60-90 days.

Sudangrass

(Sorghum sudanense)

\$0.95 /lb



Grows 5-8 feet. Produces over 2,000 lbs of seed per acre under the right conditions. It can be flooded for waterfowl or left dry for upland birds. Sudan supplies winter cover as well as an abundance of hard seed which lasts until spring. Plant early, right after last frost. Will grow on average soil with no irrigation. Plant 25 lbs/acre at 1-2" deep. Matures in 100-120 days.

#12 50% White Proso Millet / 50% Sudangrass

These two grasses compliment each other—Proso low growing/Sudan tall. Flood for waterfowl or leave dry for Upland. Plant annually after last frost. Will grow west of Cascades with no irrigation. Plant 25 lbs/acre at 1" to 1 1/2" deep.

Special Price \$0.95 /lb

#10 50% Wild Millet / 50% White Proso Millet

This mix works well in areas that won't be flood irrigated. When flooded for hunting, the birds will feed on the standing proso first. As that is eaten, they will forage in the down straw for weeks, cleaning the Wild Millet. The Wild Millet will volunteer the following year. Plant 25 to 35 lbs/acre at 1/2" deep.

Special Price \$2.25 /lb

Native Plants that Attract Waterfowl

Lambsquarters / Fat Hen

(Chenopodium album)

\$9.80 /lb

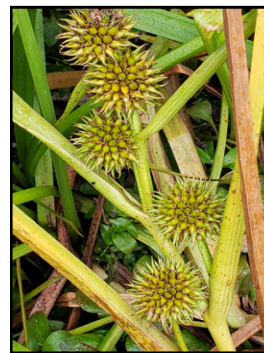


Lambsquarters is a **native** annual of the Goose-foot Family. It grows well in damp to dry areas. It can be flooded to attract waterfowl or left dry for upland birds. It produces thousands of edible seeds per plant. Plant 10-12 lbs/acre at 1/4"-1/2" deep.

Bur-reed

(Sparganium emersum)

\$125.50 /lb



Bur-reed is a perennial **native** emergent that grows well in seasonally or permanently flooded areas. Ducks love the seed. The entire plant is a favorite of deer, geese and muskrats. Grows 8-20 inches.

Due to a complicated stratification it may not sprout until 2nd or 3rd year. Needs a cold-warm-cold-warm stratification to sprout. Usually added to mixes. Plant 5-7 lbs/acre at 1/4"-1" deep.



Pennsylvania Smartweed ----- See page 3

American Sloughgrass ----- See page 4

Wild Rice ----- See page 5

Native Plants that Attract Waterfowl

Shortawn Foxtail

(*Alopecurus aequalis*)

\$25.95 /lb



A perennial **native** grass that only grows to 5-15 inches. It is found in wetlands throughout Oregon and Washington. It is great for seasonal wetlands as it will withstand long periods of submersion, as well as drought. Waterfowl feed on the seed and forage the rhizome root system for invertebrates. Plant 6-8 lbs/acre on surface to 1/4" deep.

Western Mannagrass

(*Glyceria occidentalis*)

\$17.50 /lb

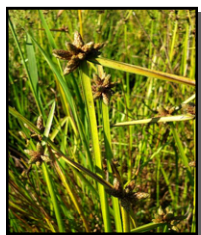


This is a **native** perennial that grows from 1-3 feet. Mannagrass likes to be planted in areas that stay underwater for the winter and even into the late spring to mid summer. It is one of the first plants to be seen in late winter. In the northwest it will be growing and the leaves will be floating on the water as early as late December. This provides a habitat for invertebrates that waterfowl love to feed on. As the water gets shallower in late spring, mannagrass will send up seed heads. By mid summer, the seeds are shattering from the heads and falling into the vegetation. As it floods in the fall, ducks love to forage for these seeds and once again for the invertebrates that inhabit the wet matted straw. Grows well with American Sloughgrass and Water Foxtail. Plant 15-20 lbs/acre on surface to 1/2" deep.

Alkali Bulrush

(*Bolboschoenus maritimus*)

\$29.50 /lb



A **native** perennial, that can tolerate periods of drought and total inundation. It forms large dense stands in alkaline or saline sites, handling a pH of up to 9.0 but can also grow in fresh water sites. Plant 6-8 lbs/acre.

Waterfowl & Upland Bird Attracters

Grow on dry ground. Leave dry for upland birds or flood when ripe for waterfowl

Wild Proso Millet

\$2.45 /lb



This wild variety of proso millet grows much like its domesticated relative, white proso millet, but has the distinct ability to reseed itself each year. It grows well in field applications that can be left dry for upland bird food/cover or grown in seasonally dry ponds that will be flooded for fall and winter to provide amazing feed for waterfowl. Plant 20 lbs/acre at 1/4" deep. Matures in 60-90 days.

River Refuge Crabgrass

\$4.75 /lb



Crabgrass seed is an excellent source of food for both waterfowl and upland birds. It can also produce an abundance of ground cover for upland birds. This easy growing plant can grow in a variety of growing conditions ranging from moist soil to droughty dry. It's also a quick growing crop that matures in 60-80 days with little to no irrigation. Crabgrass has the ability to be flood irrigated and can handle being flooded for the Fall and Winter and regrow each year with a Spring/Summer draw down. All of these factors make it an ideal companion crop to go with other seasonal wetland crops such as Wild Millet, Pennsylvania Smartweed, and American Sloughgrass. Plant 25 lbs/acre at 1/4" deep.

#19 80% Wild Millet / 20% RR Crabgrass

This mix is a great duo of fast, easy growing annuals that can volunteer back each year. It will thrive in seasonal wetlands that draw down in the Spring and Summer and can even handle some mild drought conditions. The mix will mature in 60-80 days. Recommended planting rate is 20-25 lbs/acre at 1/4" deep.

Special Price \$3.65 /lb

Waterfowl & Upland Bird Attracters

Grow on dry ground. Leave dry for upland birds or flood when ripe for waterfowl

Hard Pea

\$1.15 /lb

FALL OR SPRING PLANT



An annual pea that produces huge amounts of hard seed. Great for upland birds, waterfowl and deer. Plant in the fall or spring. Plant 100 lbs/acre at 1"-2" deep.

Early Spring Pea

\$1.95 /lb

An extra short season pea with a 60 day maturity. Does well on average soil. Good for goose and duck feed. They can be planted in summer where soil moisture is good. These peas do really well at higher elevations with short growing seasons. Plant 100 lbs/acre at 1"-2" deep.

#13 50% Early Spring Pea / 50% Poco Barley

This mix is a 50/50 blend of our two quickest maturing species, each reaching maturity in just 60 days. This makes it an excellent choice for higher elevation areas that have shorter growing seasons. This mix can be planted on average soil as long as good soil moisture is available. Plant 100 lbs/acre at 1"-1 1/2" deep.



Special Price \$1.45 /lb

Native Plants that Attract Waterfowl

Water Plantain

(*Alisma triviale*)

\$19.90 /lb



A perennial **native** emergent that grows in both shallow and deep marshes. It is often used in wetland restorations. Waterfowl readily feed on the seeds and plants. Best planted in fall. Will sprout in up to 12" of water. Plant 15 lbs/acre on surface to 3/8" deep. Matures in 60 to 80 days.

Wapato or Arrowhead

(*Sagittaria latifolia*)

\$124.50 /lb



This **native** forb grows 2-3 ft. These tubers grow quickly and spread rapidly in wet marshes and shallow ponds. Will sprout in up to 12" of water. Waterfowl devour the seed head, foliage and tubers. A little seed goes a long way! Best planted in fall to mid winter. Seed requires 60 days of cold. Try broadcasting some Wapato seed on your pond with the wind at your back. Some seed will float to the edges and some will sink. Try this in Feb/March. Works fine on permanent or seasonal ponds. Plant 1-3 lbs/acre on surface to 1/4" deep. Matures in 90-

#14

Native Shallow Water Mix

60% Water Plantain / 30% Western Mannagrass

5% Wapato / 5% Bur-reed

This mix is ideal for shallows up to 12" deep in marshes, swamps, streams and ponds. Each one of these native perennial species will sprout under and grow up through the water. These plants provide great habitat and the waterfowl devour the seed heads, foliage and tubers. Planting can be done by broadcasting seed directly in to water or on to open mudflats at a seeding rate of 15-20 lbs/acre.

Special Price \$19.95 /lb