

San Lorenzo Valley Water District announces:

NEW WATER CONSERVATION CREDIT PROGRAM

The San Lorenzo Valley Water District announces a new water conservation credit program effective September 15, 2009. This program offers you, as a qualifying District customer, the opportunity to earn various credits to your District account. The new program offers several new landscaping credits, as well as updated toilet and clothes washer credits. All of these credit options encourage District customers to save both water and money.

The District's new program offers the following credit options:

HIGH EFFICIENCY TOILET (HET) CREDIT

Replacement of an existing 3+ gallon per flush toilet with a new high-efficiency toilet (1.28 gallons per flush) for a credit of up to \$150 per toilet.

NOTE: Effective September 15, 2009 the District no longer offers a credit for 1.6 gallons per flush toilets (which were called "Ultra Low Flow" toilets).

HIGH EFFICIENCY CLOTHES WASHER CREDIT

Installation of a high-efficiency clothes washer for a credit of up to \$100 per washer.

DRIP IRRIGATION SYSTEM CONVERSION CREDIT

Conversion of an existing sprinkler system to a drip irrigation system for a credit of up to \$500 per account.

WEATHER-BASED IRRIGATION CONTROLLER CREDIT

Installation of a weather-based irrigation controller for a credit of up to \$125 per account.

LAWN REPLACEMENT CREDIT: WATER-WISE GRASS

Conversion of an existing lawn to water-wise grass for a credit of up to \$750 per account.

LAWN REPLACEMENT CREDIT: SYNTHETIC GRASS

Conversion of an existing lawn to synthetic grass for a credit of up to \$750 per account.

The following general restrictions apply to all credits:

- Credits are available only to customers of the San Lorenzo Valley Water District.
- For each credit, you must contact the District to reserve your credit and have an application sent to you.
- For most credits, your application is guaranteed for only thirty (30) calendar days from the time the application is dated.
- For each credit, you must return the application to the District with original receipts within the designated time period.
- Each application must have the written approval of the owner of the property.
- Funding for water conservation program credits is limited, and credits will be awarded on a first-come, first-serve basis, provided the application meets all qualifying criteria.
- There is no implied or expressed guarantee that funding will be available at the time the application is processed.
- Pre- and/or post-installation site inspections may be required.
- Each credit option carries a cap that limits how much may be credited to each account;
- In no case will a credit exceed the amount of the actual project cost.
- The District does not endorse, recommend, or make any representations as to specific brands, products, contractors, or dealers; nor does it guarantee materials or workmanship; acceptance of such is customer responsibility.
- Additional restrictions may apply. Refer to each credit option for more information.

For additional information or to obtain an application contact the Customer Service Department (831) 338-2153 or e-mail [**Customer Service@slvwd.com**](mailto:CustomerService@slvwd.com).

Read about each credit option to find out how you can qualify.

HIGH EFFICIENCY TOILET (HET) CREDIT

The District is now offering up to a \$150 credit to District customers who replace an existing pre-1992 toilet (3.5+ gallons per flush) with a new high-efficiency toilet (HET) (1.28 gallon per flush).

NOTE: Effective September 15, 2009 the District no longer offers a \$100 credit for 1.6 gallons per flush toilets (which were called "Ultra Low Flush" toilets).

What are the requirements for the HET credit?

- You must replace an existing 3.5 or greater gallon per flush (gpf) toilet with a new 1.28 gpf or less toilet.
- You must purchase the HET on or after September 15, 2009.
- You must request, complete, and return the HET credit application to the District, with attached original receipt, within 30 days of the date on the application.
- A separate application is required for each HET credit.
- A post-site inspection is required. (Contact the District at 338-2153 to set up an appointment).
- For the lifetime of your account, your combined credits for toilets and High-Efficiency Clothes Washers cannot exceed \$400.

Which HET models qualify for a credit?

You may select any high-efficiency toilet on the market that flushes 1.28 gallons or less (this includes dual-flush toilets). The District strongly recommends that you select a *WaterSense* approved toilet to ensure it is a high-efficiency toilet and that it flushes well.

How do I apply for a HET credit?

Follow these steps:

1. Contact the District's Customer Service Department at 338-2153 to request an application for a high-efficiency toilet credit.
2. Complete the application and return it to the SLV Water District with the original sales receipt. (The application must be returned within 30 days of the date on the application).
3. Complete the installation and schedule a post-installation site inspection.

4. The approved credit is applied to your account.

How much credit am I eligible to receive for a new HET?

If your HET replacement toilet qualifies, you are eligible to receive a credit of up to \$150 per toilet. For the lifetime of your account, your combined credits for toilets and High-Efficiency Clothes Washers cannot exceed \$400.

How much water will I save by replacing my old toilet with a HET?

A 1.28 gallons per flush high-efficiency uses 70% less water than an older 3.5+ gallons per flush toilet. Toilets consume more water than any other indoor use, so replacing your old toilet is one of the best ways to save water.

HIGH EFFICIENCY CLOTHES WASHER CREDIT

The District continues to offer a credit of up to \$100 to District customers who purchase and install a high-efficiency clothes washer.

What are the requirements for the high efficiency clothes washer credit?

- To qualify, washing machines must be new and Energy-Star Compliant.
- A separate application is required for each clothes washer being installed.
- You must request, complete, and return the high-efficiency clothes washer credit application to the District, with attached original receipt, within 30 days of the date on the application.
- A post-site inspection is required. (Contact the District at 338-2153 to set up an appointment).
- For the lifetime of your account, your combined credits for toilets and High-Efficiency Clothes Washers cannot exceed \$400.

Which high-efficiency clothes washers qualify for a credit?

You may select any high-efficiency clothes washer on the market that is rated as Energy-Star Compliant.

How do I apply for a high-efficiency clothes washer credit?

Follow these steps:

- 1.** Contact the District's Customer Service Department at 338-2153 to request an application for a high-efficiency clothes washer credit.
- 2.** Complete the application and return it to the SLV Water District with the original sales receipt. (The application must be returned within 30 days of the date on the application).
- 3.** Complete the installation and schedule a post-installation site inspection with the District.
- 4.** The approved credit is applied to your account.

How much credit am I eligible to receive?

If your high-efficiency clothes washer qualifies, you are eligible to receive a credit of up to \$100 per clothes washer. For the lifetime of your account, your combined credits for toilets and high-efficiency clothes washers cannot exceed \$400.

How much water will I save with a high-efficiency clothes washer?

When you switch to a High-Efficiency, Energy Star Compliant washing machine you can save up to 50% of the water used for clothes washing.

DRIP IRRIGATION SYSTEM CONVERSION CREDIT

Convert an existing spray irrigation system to a drip system and receive a credit on your water bill of up to \$20 per every 100 square feet of area converted, for a credit of up to \$500 per account.

What are the requirements for a drip-irrigation system credit?

- You must properly convert an existing spray irrigation system to a drip irrigation system.
- Micro-spray devices may be used where appropriate.
- An existing spray irrigation system must be in working condition prior to conversion.
- Both a pre- and post-site inspection by a District water conservation representative are required.
- You must convert at least 100 square feet of landscape from spray to drip.
- You must return the completed application with attached original receipts, within 60 days of the date on the application.

How do I apply for a drip-irrigation system credit?

Follow these steps:

- 1.** Contact the District's Customer Service Department at 338-2153 to request an application for a drip-irrigation system credit.
- 2.** Contact the District to schedule a pre-installation inspection.
- 3.** The District completes pre-installation inspection and certifies your eligibility.
- 4.** Complete the project and schedule a post-installation site inspection.
- 5.** Complete the application and return it to the SLV Water District with the original sales receipt. (The application must be returned within 60 days of the date on the application).
- 6.** The District completes the post-installation inspection and approves the project.
- 7.** The approved credit is applied to your account.

Who can do the conversion work?

You may install the irrigation system yourself or pay a contractor to do it. Do-it-yourself labor costs are not eligible for credits. A post-installation site visit by the District is required to verify that the irrigation system is properly installed.

Why should I convert to a drip irrigation system?

- Drip irrigation systems are far more efficient for irrigating lawns and gardens.
- Drip irrigation systems deliver moisture directly to the roots of plants, so far less water lost to evaporation than with traditional spray irrigation systems.
- There much less risk of accidentally watering roads, driveways and pathways.
- There is less tendency to over-water, which results in less water waste and less risk of plants developing diseases.
- For larger areas, spray irrigation systems that use mini-sprinklers and fine mist spray devices effectively create a moist environment, and they do this more efficiently than conventional spray irrigation systems with jet sprinklers.

How much credit am I eligible to receive?

You may receive a credit of up to \$20 per 100 square feet of landscape converted to drip, up to a maximum of \$500 per account. For areas greater than 100 square feet, the amount will be pro-rated based on square footage (Example: A converted 250 square foot area would receive a \$50 credit). Do-it-yourself labor costs are not eligible for credits.

How much water will I save by converting to drip irrigation?

Conversion to drip is estimated to save a typical home landscaping about 9 gallons per square foot per year or roughly 4,500 gallons per year for a 500 square foot landscape.

WEATHER-BASED IRRIGATION CONTROLLER CREDIT

Purchase and install a weather-based irrigation controller and receive a credit of up to \$75 or \$125, depending on the type of controller.

What are weather-based irrigation controllers?

Weather-based irrigation controllers have clocks that use current weather information to automatically apply the appropriate amount of water to the landscape. They can be installed new or replace an existing controller.

How do weather-based controllers work?

There are two types of controllers:

1. Sensor-based controllers use on-site weather or solar sensors to create irrigation schedules (up to a \$75 credit).
2. Signal-based controllers rely on daily weather updates received from satellite signals or require an internet connection to receive the information (up to a \$125 credit).

What are the requirements for a weather-based irrigation controller credit?

- You must properly install the weather-based controller to your irrigation system.
- A post-site inspection by a District water conservation representative is required to verify that the controller is installed properly.
- You must return the completed application with attached original receipts within 30 days of the date on the application.

How do I apply for a weather-based irrigation controller credit?

Follow these steps:

1. Contact the District's Customer Service Department at 338-2153 to request an application for a weather-based irrigation controller credit.

2. Complete the application and return it to the SLV Water District with the original sales receipt. (The application must be returned within 30 days of the date on the application).
3. Complete the project and schedule a post-installation site inspection.
4. The District completes the post-installation inspection and approves the credit.
5. Receive the approved credit on your account.

How much credit am I eligible to receive?

You may receive up to a \$75 credit for sensor-based controllers that do not have an associated signal. You may receive up to a \$125 credit is for signal-based controllers with an associated signal.

Must I replace an existing irrigation controller to get the credit?

No. You can either replace an existing controller or install a weather-based irrigation controller where no irrigation system was in place before. No pre-site visit is required; only a post-site visit.

Why should I install a weather-based irrigation controller?

A weather-based controller can be beneficial in the following ways:

- Saves you time because you no longer have to adjust the irrigation clock.
- Saves you money because you use less water.
- Makes your plants healthier because they won't suffer from over-watering.

What landscapes are suited to weather-based irrigation controllers?

While weather-based irrigation controllers will work for any landscape, they are most cost-effective for medium-sized or larger landscapes. They also work well for vacation homes.

How much do weather-based irrigation controllers cost?

Weather-based controllers are usually more expensive than typical irrigation controllers. Prices vary, starting at around \$175 for the simplest type. Signal-based controllers have an additional, ongoing signal fee. However, with the District credit and savings on your water bill, the controller can pay for itself over time.

Which weather-based irrigation controller should I choose?

Generally, the larger the landscape the more sophisticated the controller you will need. A landscape professional may be able to help.

How much water do weather-based irrigation controllers save?

Weather-based irrigation controllers are proven to reduce landscape water use on average by 20% in well-maintained irrigation systems. Keep in mind that these devices cannot correct overspray, irrigation system leaks, or poor design. To get the most benefit from a weather-based controller, you should have a properly designed and maintained irrigation system, and be willing to make repairs and changes to your system if it is not working well.

LAWN REPLACEMENT CREDIT: WATER-WISE GRASS

Replace an existing high-water use lawn with low-water use grass and receive up to \$1.50 per square foot of turf replaced, up to a maximum of \$750 per household.

What are the requirements for a water-wise grass credit?

- You must replace an existing lawn with low-water use grass seed or plugs. (Replacement grasses must be on the [approved water-wise grasses list](#) or pre-approved by District staff).
- Pre- and post-site inspections are required (contact the District at 338-2153 to set up an appointment)
- You must complete the water conservation program application with attached original receipts of grass seed or plugs and related costs. Contractor installation costs are eligible for reimbursement.
- Hardscape items (i.e. gravel, flagstone, etc.) are not eligible for replacement.
- You must return the completed application within 60 days of the date on the application.

How do I apply for a water-wise grass credit?

Follow these steps:

- 1.** Contact the District's Customer Service Department at 338-2153 to request an application for a water-wise grass credit.
- 2.** Contact the District to schedule a pre-installation inspection.
- 3.** The District completes the pre-installation inspection and certifies your eligibility.
- 4.** Complete the project and schedule a post-installation site inspection.
- 5.** Complete the application and return it to the SLV Water District with the original sales receipt. (The application must be returned within 60 days of the date on the application).
- 6.** The District completes the post-installation inspection and approves the project.
- 7.** The approved credit is applied to your account.

Why should I replace my “regular” lawn with water-wise grass?

Water-wise grass will save you water and money, as well as maintenance time. You will also have a more ecologically sound landscape.

Does water-wise grass look and behave like a “regular” lawn?

There are a range of water-wise grass types and some of them are considered a good replacement for a typical lawn, because it can be mowed and take foot traffic.

What types of grass seed or plugs qualifies for the credit?

Replacement water-wise grasses must be on the [approved water-wise grasses list](#) or pre-approved by District staff to qualify for credit.

Where can I purchase water-wise grasses?

Ask your local nursery if they carry water-wise grasses. Some provide lots of useful information on their web sites as well.

How much does water-wise grass cost?

The cost depends on the grass type you select and whether you choose to use seed, 2-inch plugs or 4-inch plugs. The cost ranges from 25 cents per square foot to \$2 per square foot. Note that it may take a few months for the seeds or plugs to spread and fill in. Check with your local nursery to determine the actual cost.

Why should I replace my “regular” lawn with water-wise grass?

Besides using less water, water-wise grasses usually require less maintenance and chemical application (i.e., fertilizers, pesticides, etc.).

How do I plant and care for a water-wise lawn?

Most nurseries can provide you with instructions.

Can I purchase water-wise grass as sod?

Not at this time. The water-wise grasses typically have deep roots that prevent them from being cut as “roll-out” sod. However, the grass plugs and seeds will grow into a lawn within a few months.

How much water will I save by planting water-wise grass?

A typical lawn uses approximately 27 gallons per square foot per year in this region. Water-wise grasses require only about 25% or less water than typical lawns, once they are established. Some of the water-wise grasses require no irrigation once they are established. A typical 500 square foot lawn that is replaced with a water-wise grass or plants can expect to save at least 8,000 gallons per year.

How much credit am I eligible to receive?

The credit is \$1.50 per square foot for replacing typical turf with water-wise grass, up to a maximum of \$750 per household. The credit amount depends on the square footage of turf removed and replanted with low water use grass, either in seed or plugs. Do-it-yourself labor costs are not eligible for credit. Under no circumstance can the credit amount exceed the cost of the labor, seed and plug material.

LAWN REPLACEMENT CREDIT: SYNTHETIC GRASS

Replace your existing high water-use lawn with synthetic grass (also known as artificial turf) and receive a credit of up to \$1.50 per square foot of lawn replaced, not to exceed \$750 per account.

What are the requirements for the synthetic grass credit?

- You must replace an existing lawn with synthetic grass.
- Pre- and post-site inspections are required. (Contact the District at 338-2153 to set up an appointment.)
- You must request, complete, and return the application for a synthetic grass credit with attached original receipts, which may include contractor installation costs.
- Hardscape items (i.e. gravel, flagstone, etc.) are not eligible for replacement.
- You must return the completed application within 60 days of the date on the application.

How do I apply for a synthetic grass credit?

Follow these steps:

- 1.** Contact the District's Customer Service Department at 338-2153 to request an application for a synthetic grass credit.
- 2.** Contact the District to schedule a pre-installation inspection.
- 3.** The District completes the pre-installation inspection and certifies your eligibility.
- 4.** Complete the project and schedule a post-installation site inspection.
- 5.** Complete the application and return it to the SLV Water District with the original sales receipt. (The application must be returned within 60 days of the date on the application).
- 6.** The District completes the post-installation inspection and approves the project.
- 7.** The approved credit is applied to your account.

Why should I replace my “regular” lawn with synthetic grass?

If you want a perfect lawn all year round that requires no water and no mowing, then you may want to consider replacing your lawn with synthetic grass.

Does synthetic grass look and feel artificial?

Synthetic grass available today looks and feels more real than types available previously. It is perforated for good drainage and needs very little maintenance. Many residential synthetic grasses do not retain moisture or pet odors and are durable enough for dogs.

How much water will I save with synthetic grass?

Since lawns need the most amount of water in a typical yard, and synthetic lawns need next to no water, making the switch can save thousands of gallons of water every month.

How much credit am I eligible to receive?

If your project qualifies, you are eligible to receive a credit of up to \$1.50 per square foot for replacing an existing, typical lawn with synthetic grass, up to a maximum of \$750 per account. The credit amount depends on the square footage of lawn removed and replaced. Do-it-yourself labor costs are not eligible for credit. Under no circumstance can the credit amount exceed the cost of the synthetic grass project.

APPROVED WATER-WISE GRASSES

- *Agrostis hallii* (Hall's Bentgrass)
- *Bouteloua gracilis* (Blue Gramma)
- *Carex pansa* (Dune sedge)
- *Deschampsia caespitosa* (Tufted hair grass)
- *Festuca californica* (California fescue)
- *Festuca idahoensis* (Idaho fescue)
- *Festuca Pt. Joe* (Pt. Joe fescue)
- *Festuca rubra* (Red fescue)
- *Koeleria macrantha* (June grass)
- *Melica californica* (California oniongrass)
- *Poa secunda* (Pine bluegrass)

Descriptions of the grasses listed above are provided below.

***Agrostis hallii* - Hall's Bentgrass:** *Characteristics:* *A. hallii* is a rhizomatous perennial grass that grows to about 1 foot in height. Its culms are tall and erect approaching 1 1/2 to 3 feet tipped with wide, loose panicles. It has a bright green color.

Conditions: *A. hallii* requires little water and infrequent mowing.

Geographic location: *A. hallii* is mostly found in open oak woodlands or coniferous forest near the coast from Oregon to Santa Barbara, California.

Applications: *A. hallii* shows potential as a ground cover or turf. The restoration, forage, and habitat value of *A. hallii* is undetermined.

***Bouteloua gracilis* - Blue Gramma:** *Characteristics:* *B. gracilis* is a tufted perennial bunchgrass that has a full-grown stature of 1 to 2 feet in height and 1 foot in width. Its foliage is green and it has a root depth of 16 inches. Its flowering stems bloom in early summer and have a red hue in the beginning of summer that bleaches to white from sun exposure. Grows during the warm-season and has a moderate life span.

Conditions: This bunchgrass tolerates regular water but is also drought tolerant. It can live in full sun and grows in sandy, loamy, or alkaline soils. *B. gracilis* can tolerate mowing and foot traffic.

Geographic location: *B. gracilis* finds home on plains in Wisconsin to Manitoba and Alberta , south to Arkansas , Texas , Southern California and into Mexico .

Applications: *B. gracilis* forms a very coarse turf substitute that, after established, is a fairly level low-water-maintenance lawn if mowed. Its florets and seeds are in a distinct ornamental structure that is appealing in a yard. After the first year of growth *B. gracilis* will overcome weeds to provide native re-vegetation. *B. gracilis* is also great for spring grazing.

Carex pansa - Dune Sedge: *Characteristics:* *C. pansa* is a very small creeping dune plant that grows to be 4 inches tall and 3 1/2 inches to 3 feet wide. This perennial has fine green leaves that make small tufts when healthy. The green florescence blooms in late spring and can remain throughout the year. *C. pansa* is a cool season grower that spreads by rhizomes.

Conditions: *C. pansa* favors partial shade or full sun and tolerates seasonal flooding. It prefers sandy or well-drained soil. Foot traffic and mowing is all right; however, mowing is not necessary.

Geographic location: *C. pansa* is found in coastal woodland understory. Even though it is a coastal species it adapts well to other inland conditions. It is found in California.

Applications: *C. pansa* makes an excellent lawn substitute that deer will not eat. It is also used for dune restoration and provides habitat cover for many critters.

Deschampsia caespitosa -Tufted Hairgrass: *Characteristics:* *D. caespitosa* is a densely tufted bunch grass that reaches heights of 1 to 4 feet and a width of 2 feet. It has narrow dark green leaves that are stiff and rough to the touch. It maintains its green color in mild climates. This bunchgrass has a very attractive, airy flower stalk that is variable in color, showing purple, silver, green, or gold. Feathery

inflorescence show up in late spring or early summer. It grows in spring and summer and if allowed to go dormant it will turn a pale tan. This perennial is long living and spreads by rhizomes.

Conditions: *D. caespitosa* is flexible to weather conditions because it is tolerant to water, including salty water, as well as drought. Thrives under high shade canopy where it is humid; however, it does best in semi-shade. It prefers heavy soils, but can tolerate sandy soil. *D. caespitosa* tolerates mowing and foot traffic.

Geographic Location: *D. caespitosa* is widely scattered in different environmental conditions and geographic regions. Commonly found in mountain meadows but also occurring at lower elevations and along the coast near springs, bogs, and marshes. In California it is found from the high canopied pine forests of the coast to higher elevations in the Cascades and Sierras. It finds habitat east to the Rocky Mountains and Atlantic coast. It also exists north through Canada up to Alaska.

Applications: *D. caespitosa's* seed heads make a beautiful, graceful impression that is complimentary to surrounding water features. It acts as a natural lawn or as a footpath and selections of the species can be used for sports fields including soccer, rugby, and golf. It is valuable for erosion control and re-vegetation around water areas such as ponds, streams, ditch banks, waterways, marshy areas, swampy pastures, and alluvial areas. *D. caespitosa* is an important forage grass in the West that provides good food and cover for animals. Livestock relish it, and if managed properly, will respond well to grazing.

***Festuca californica* - California fescue:** *Characteristics:* This perennial grows in loose clumps that reach 2 to 5 feet high and a full-grown width of 1 to 2 feet. It has blue-green or blue-gray leaves that maintain their color throughout the year. In late spring to early summer feathery flowers bloom from the crown. The flower spikes that are initially green change to purple and finally turn a rich yellow. Its root depth stretches to 8 inches. *F. californica* is long lived and grows in the cool season.

Conditions: Does well in sun or partial shade and tolerates drought in cooler climates. *F. californica* can withstand a dry environment or

extreme frost. *F. californica* is adapted to various soil types including serpentine soils but does need good drainage. *F. californica* cannot tolerate regular foot traffic; however, it can be mowed.

Geographic location: *F. californica* is native to open dry ground, chaparral slopes, and woodlands in the coastal mountains from Oregon to Northern California. It also grows west of the Sierras and in the Coast Range from Santa Barbara to Oregon at 1000 to 5000 feet.

Applications: This striking, wiry, accent plant, can be used in landscapes as a groundcover, turf, focal point, or in groups for dramatic emphasis. Used for erosion control to stabilize or restore disturbed sites. In restoration it can benefit from association with a nurse crop, such as brome or *Elymus*, since it is slow to establish. Once it is established it can be expected to provide long lasting benefits for erosion control, habitat value, fire resistance, and as a striking aesthetic display. It is excellent for habitat value, providing good wildlife food and cover. As forage *F. californica's* use is limited to early growth stages.

Festuca Point Joe - Point Joe Fescue: A bunch grass well suited for a water-wise lawn. Grows well in poor soil and drought conditions. 1 foot tall round clumps and throws 2 foot tall seed heads. Grass is blue in color and great for coastal landscapes. For a manicured lawn, mow to 4".

Festuca idahoensis -Idaho Fescue: *Characteristics:* This densely tufted bunchgrass grows in clumps that are 10 inches wide and 1 to 3 feet tall. The color of its foliage ranges from blue-green to silvery-blue. *F. idahoensis* has tall culms with loosely bound panicles. Its yellow flowers bloom in early summer. It is generally fine-leafed; however, some blue-green forms occasionally show a coarser texture. It goes dormant in summer until the first rains of the fall and grows in the cool season. Spreads slowly by seeds and has a root depth of 14 inches. *F. idahoensis* is a relatively long-living perennial.

Conditions: Can withstand a dry environment or extreme frost. It will grow in most all exposures to sun. *F. idahoensis* will tolerate drought and poor soil conditions and is moderately tolerant to cool, wet soils. It can survive foot traffic and rare mowing.

Geographic Location: *F. idahoensis* grows in open woods or rocky slopes and is widely adaptable from British Columbia to Alberta, all the way south to central California and Colorado.

Applications: *F. idahoensis* is excellent for landscape applications where soil conditions are poor as a fine-leaved groundcover; turf substitute; ornamental; or natural meadow. It is also used as a cover crop in orchards and vineyards because of its lack of water competition with the economic crop, as well as its ability to suppress weeds while keeping the soil structure open. Provides erosion control while improving soil structure. Acts as superb nutritive forage for all livestock when it is both green and cured. *F. idahoensis* is highly palatable for livestock and can be used as a component in pasture renovation.

***Festuca rubra* - Red fescue:** *Characteristics:* *F. rubra* is a loosely tufted perennial bunch grass that grows from 8 inches to 2 feet tall. This grass has tall culms and beautiful fine-leaved dark green blades when watered. It has flowers that are pale green with an occasional purple tinge, which bloom in mid spring. *F. rubra* is long-lived, growing in the cool season of spring and fall while spreading by rhizomes.

Conditions: *F. rubra* is one of the most shade-tolerant of quality turf grasses. It flourishes best with cool summers and a damp growing season. It requires partial shade and irrigation in hotter climates. This bunchgrass has the ability to withstand a range of conditions including extreme frost, moist soils, or dry areas. It needs good drainage but is adaptable to a wide range of soils such as saline or low fertility soils. For a nice lawn it takes well to occasional mowing and foot traffic.

Geographic location: *F. rubra* is found in bogs, meadows, and marshes throughout California and in the cooler parts of the Northern Hemisphere to around 8000 feet.

Applications: It presents a graceful windswept look when allowed to grow to its maximum height and is especially dramatic as hillside cover where it gives a fluid impression akin to a water cascade. For those wishing to escape the tyranny of the maintenance requirements of the

standard lawn, it makes a wonderful natural looking lawn or groundcover. Mixed with other grasses and wildflowers it can be used as the base for the creation of a classic natural meadow. Drought avoiding selections are also useful as a cover crop in vineyards and orchards; for buffer zones and rough areas on golf courses; and for use in stream bank and riparian applications. *F. rubra* is useful for erosion control, soil conservation, weed competition, and re-vegetation. Some examples of restoration uses include hillside stabilization; waterway banking; and highway re-vegetation. This grass is valuable forage that stays green after frost, remaining good throughout fall for foraging.

***Koeleria macrantha* - Junegrass:** *Characteristics:* This tufted perennial bunch grass approaches 18 inches in height and 4 to 7 inches in width. It has a low stature and fine appearance. *K. macrantha* has green ribbon-like leaves and glossy spike-like flower stalks with yellow seed heads that bloom in late spring. It is long-lived, growing in spring and fall and spreading by rhizomes.

Conditions: It prefers hot summers without water and can tolerate partial shade. *K. macrantha* is widely adapted, living in dry, thin, rocky, sandy, or saline soils of low fertility. It is low maintenance but can be mowed. Some selections of *K. macrantha* can tolerate regular foot traffic.

Geographic location: *K. macrantha* is found in the prairie, open woods, and slopes throughout North America from Ontario to British Columbia, south to Delaware, Missouri, Louisiana, and California as well as in much of the temperate world below 11,000 feet.

Applications: *K. macrantha* is great for lawns or native meadows. We have two selections, 'Los Padres', a native selection, which grows to full height, and a low growing selection, 'Barkoel', selected from northern Europe, which is bright green, slow-growing and shows tremendous potential for a drought tolerant, low maintenance lawn and for use on water-conscious golf courses. Used for re-vegetation, it acts as an early successional species in very dry sites that protects later successional species. *K. macrantha* makes good early spring and fall (after curing) forage that is relished by livestock and wildlife.

***Melica californica* - California Oniongrass:** *Characteristics:* This perennial can be densely or loosely tufted and grows 2 to 4 feet tall and 4 to 7 inches wide. Its leaves are bright green with a delicate appearance. Its flowering culms are silvery and ornamental, arching horizontally from its swollen, onion-like base. The white to purple inflorescence blooms during the summer. Growing in the cool season, it goes dormant in the summer resisting efforts to revive with water. It is short-lived and has rhizomatous roots that grow well once established, with accelerating growth in the second year.

Conditions: *M. californica* likes moist environments and tolerates a range of sun exposures from full sun, partial sun, to full shade. It does well in sandy, clay, or serpentine soil. *M. californica* tolerates mowing but not foot traffic.

Geographic location: *M. californica* is common on oak covered north slopes, gullies covered with *Baccharis*, canyons, foothills, mountain meadows, rocky woods, and occasionally chaparral areas. Common associated plants are *Mimulus*, Ferns, *Lonicera*, and *Ribes*. It is found at low to middle elevations, below 5000 feet, in California and Oregon.

Applications: It can be used as a winter lawn that requires little water and maintenance. *M. californica* is also used in moist rock gardens or shade gardens. *M. californica* is small but can add balance and finish to a native garden. It is useful as a component of cover crops in vineyards and orchards, subsoil slips, and road cuts. As a component of restoration mixes it adds a bright green seasonal appearance and diversity of habit, especially for difficult rocky and dry sites. This nutritious forage is very palatable to livestock and deer. Birds find its seeds to be delectable.

***Poa secunda* - Pine bluegrass:** *Characteristics:* A very attractive, low-growing, perennial bunch grass. Growth form ranges from small tufts with only one or two erect culms to large bunches up to 1 foot in diameter. Its height varies from 20 to 40 inches. It has soft foliage and an attractive flower and seed head that matures in May. *P. secunda* is a cool-season grower that will go dormant during the summer and after flowering at lower elevations. In the mountains or cool sites it will continue growing, remaining green despite its

tendency to summer dormancy and the availability of water. It is relatively short lived and has a dense shallow root mass.

Conditions: *P. secunda* can tolerate full sun and partial shade. It is very drought tolerant and does not like water after flowering. It grows well in rich clay loam soils but is most often found on dry, rocky, or sandy soils that provide good drainage. It is also adapted to thin soils and subsoil. It requires mowing well and can tolerate minimal foot traffic.

Geographic location: *P. secunda* is found from sea level to high into the mountains. It is very adaptable to many habitats such as semi-desert, ridge tops, flats, slopes, meadows, and open timberline. *P. secunda* can be found in these habitats from southeastern Alaska across to southern Canada, throughout the western and Great Plains states to Arkansas and the Great Lakes region.

Applications: *P. secunda* provides a transition, perhaps in prairie or dry meadows, between natural habitat and lawn. It also shows promise as a low-water using turf alternative. Since at lower elevations it will go summer dormant, despite the availability of water, it is thus excellent for use as a cover crop in vineyards and orchards. It is a great cover crop alone or in conjunction with *Festuca idahoensis* and *Festuca rubra* 'Molate'. A fine choice for use in re-vegetation and restoration situations, where water is unavailable such as for use along road cuts and fills sites. It prevents the establishment and spread of noxious weeds as well as providing exceptional erosion control. It provides excellent, nutritious forage in the summer, depending on location, for cattle, sheep, horses, pronghorn, elk, mule, deer, small mammals, small non-game birds, and upland game birds.