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Sacaline

The New Forage Plant



A. BLANC & CO.
Philadelphia, Pa., U.S.A.



THE NEW FORAGE PLANT

“Sacaline”

(Polygonum Sachalinense.)

THE GREAT DROUGHT-RESISTER.

Produces from 90 to 180 Tons

of Green Forage per acre in one year.

“More Nutritious than Clover or Lucerne.”

Tried and recommended by the
very highest authorities ; endorsed by the most promi-
nent horticultural and agricultural publications of all parts of the world.
Of immense value to cattle raisers, farmers,
dairymen and nurserymen.

First introduced in the United States AS A FORAGE PLANT

By **A. Blanc & Co.**

314 and 316 North Eleventh Street,
Philadelphia, Pa., U. S. A.

SACALINE.

(Polygonum Sachalinense.)

THE NEW FORAGE PLANT.

Is perfectly hardy even in Siberia—Flourishes in the Indies.

Requires no plowing before planting.

Needs no cultivation, no manuring, no re-planting.

Roots penetrate deep into the soil.

Once planted, stands forever.

Endures severest drought with impunity.

Grows in poorest soils. Luxuriates in wet lands.

Thrives where no other forage plant will grow.

Young shoots and leaves eaten as a vegetable.

Stems and leaves, green or dry, greatly relished by cattle, sheep and horses.

More nutritious than Clover or Lucerne.

Gives three and four cuttings per year.

Produces 90 to 180 tons of green forage per acre.

Grows 14 feet high by June.

Excellent soil enricher. Planted at any time.

Affords shade to cattle in Summer.

Protection against storms in Winter.

Floods will not destroy it. Fire will not kill it.

Cattle cannot trample it out.

Seed has been sold at \$3,500 per pound.

Endorsed by the highest authorities.

First introduced as a forage plant by

A. BLANC & CO.,

PHILADELPHIA, PA.

Favorably described and noticed by editors

of "The American Agriculturist," "Garden and Forest," "The Garden," "Gardeners' Chronicle," "Gardening Illustrated," "The Journal of Horticulture," "Revue Horticole," "Chronique Horticole," "Le Jardin," "Revue de l'Horticulture Belge," "Le Petit Havre," "Le Petit Marseillais," "Le Provençal," "Moller's Deutsche Gartner Zeitung," "The Indian Agriculturist," "The Practical Farmer," etc., etc.,

SACALINE

A. BLANC & CO., PHILADELPHIA

WE have again experienced a drought, equalled, perhaps, only by that of 1893. In many parts of the United States, farmers, truckers, dairymen and cattlemen have been nearly ruined, and the scarcity of pasture has been felt all over the land. It is, therefore, with great satisfaction that we are able to introduce **Sacaline** into this country as a **New Forage Plant**. In the pages that follow will be found condensed extracts from nearly a score of the most prominent agricultural and horticultural journals of France, England, Belgium, Germany, the United States, etc., all of them, without any exception, praising its value. Sacaline has the endorsement of the most eminent horticulturists of France, who discovered its properties as a forage during the severe drought experienced in that country in 1893. Mr. Edouard André,* Mr. Carriere, Mr. Gustave Huot, Mr. Martinet, Mr. Doumet-Adanson and Mr. Charles Baltet (who is the introducer abroad), are men occupying such exalted positions as editors and horticulturists, that we can, without fear of contradiction, accept every word they say in regard to Sacaline. Never before, indeed, has any plant received such flattering consideration. But this is not to be wondered at, when it is shown that it really possesses properties and qualities almost fabulous.

The following claims, fully borne out by proofs and experiments, are made for it :

Perfectly Hardy Even in Siberia.

Being a native of Siberia, it is perfectly hardy. As an ornamental plant it has been grown for twelve years at the Iowa Experimental Station, and the original plant is still standing there. It has also been grown in New York and Massachusetts. In India it has been used as a forage plant, and there it produces phenomenal crops. Its roots penetrate so deep into the soil that it requires no manuring, yet it will grow more luxuriantly in rich, moist lands.

Once planted, it stands forever. (See Mr. Baltet's claim, and also Prof. Pammel's.)

That it stands the drought better than any other forage plant known is also a well-established fact ; and one of the qualities claimed for it is that it will grow, not only in poor soils, but also in marshes, swamps and wet places, such as ditches and river banks, and where no other plant will grow.

In France, it has been recommended for railroad embankments as a protective against land-slides.

*"Mr. Edouard André, editor of the *Revue Horticole*, the most distinguished living representative of the Art of Gardening in Europe."—Professor C. S. Sargent, in *Garden and Forest*.

Grows in Poorest Soils.

As it accommodates itself to all kinds of soil, it must prove a valuable forage plant, especially for all parts of the West and South, and there it should be grown in immense tracts. But even in the Eastern and Central States hay and other fodder is seldom abundant, and we have already the assurance of a great demand from many interested parties in those localities. Since attention was called to it as a forage plant, we understand it is being tested as such at nearly every national experimental station.

Cattle Cannot Destroy It.

The roots penetrate so deep into the soil that cattle cannot pull it up nor trample it out. We were told by a Texan cattle raiser that in Uvalde County, where abundance of water is at hand, cattle had to be driven seven miles to pasture, growth of all kinds having been trampled down. This would be an impossibility with Sacaline, as the more the tops are eaten off or cut, the more the roots will ramify, producing an increased number of shoots and foliage.

Fourteen Feet of Growth by June.

It is stated that in France the plants make a growth of ten to twelve feet per year. In Iowa it grew twelve feet by the month of June. If cut then it would undoubtedly have made that much more growth again. This proves that in this country, and especially in the South, it will be greatly more vigorous than in Europe. There, it is said, that three or four cuttings, made when the plants are three or four feet high,

Produce from 44 to 88 pounds of green fodder per square yard, or 90 to 180 tons per acre.

This phenomenal product in weight is quite within reason, when it is considered that the stems grow as close together as asparagus. Indeed, we are confident that these returns will be increased here.—Dr. Robert P. Harris, of Philadelphia, states that at the Pennsylvania Hospital grounds a plant grew **seven inches in a day**, and a French writer in the *Revue Horticole* mentions twenty feet as the annual growth.

Professor Pammel, of the Iowa Agricultural College, states that at Ames, Iowa, Sacaline grew fourteen feet high by the month of June. This would indicate a much greater product than we mention above, and it is safe, therefore, to surmise that in this country, and especially in the South, one cutting could be made regularly every month during the growing season.

Let it be understood, however, that it is advisable to cut Sacaline when from three to five feet high, and to make several cuttings rather than allow the plants to make full growth.

Once Planted, Stands Forever.

Professor Budd, of Iowa, states that he brought this plant from Russia twelve years ago, and that it still occupies the same spot as an ornamental plant.

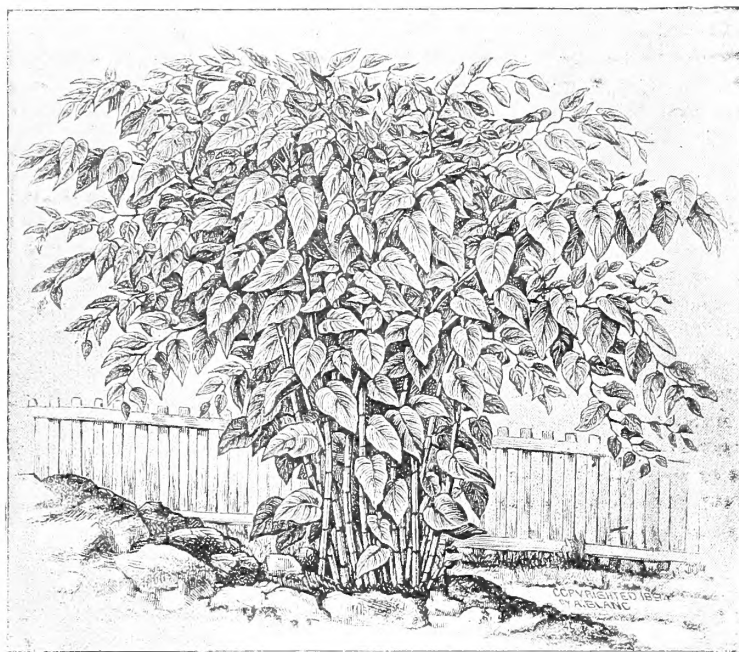
More Nutritious Than Clover or Lucerne.

Were this all, the plant might yet be quite worthless as a forage; but it has been proved to be superior in nutritive qualities to any other plant known, even to **clover or lucerne** (see analysis on page 6), and that

Horses, Cattle, Sheep and even Rabbits eat it with avidity when it is green or dried. A French writer, Mr. Emile Gautier, says: "They seem to know what is good for them, the way they eat it." Another advises that the Government grow it along the railroads so that it could easily be cut and transported in case of army mobilization or in case of war. Still another says that it will prove more valuable to French farmers than grape culture. In fact, the enthusiasm over it is unbounded.

Green Fodder all the Year Round in the South.

Perpetual Grower. We are informed that wherever severe frost does not injure the foliage, Sacaline will grow the whole year round, thereby giving fresh, green



Sacaline. Showing 12 feet of growth by June.

fodder at all times. This will make it doubly valuable for many Southern States, the Bermudas, Cuba, Mexico and Central America.

As a Drought Resister.

At the Iowa Agricultural College, Sacaline has withstood the severest drought ever experienced. On our own very dry and sandy bulb farm, in New Jersey, it has resisted this year's drought, scarcely any rain falling during three months. Mr. Samuel Wilson, of Mechanicsville, Pa., writes that it stood the drought exceedingly well, seeming to get along without any care, while geraniums growing alongside of it were entirely burned up.

As a Winter Food,

Sacaline has been highly recommended for ensilage, and for this purpose it will undoubtedly be used extensively. All dairymen will be greatly benefited by the immense crops that they will be able to cure at so little expense.

Will it not be valuable for the South and West, where cattle are raised in such enormous numbers on millions of acres of poor, cheap, arid and unproductive soils? (see article from *Garden and Forest*, page 16); or for the Eastern and Middle States? (see *American Agriculturist*, page 17).

A Soil Enricher.

As a soil enricher, there is undoubtedly an immense future for it. True, it might be troublesome to exterminate, but, as one of our friends who intends to grow it for that purpose suggests: "Why not grow it on fields adjoining the ones to be fertilized? Certainly 90 to 180 tons of 'greens' per acre would be worth it." The only fault found with Sacaline as an ornamental plant is that it grows and spreads too rapidly; but as a forage plant this is one of the great advantages claimed for it. However, that it can be eradicated by ploughing up the roots has been thoroughly proven.

Storm-Breaks.

Knowing that the stalks are over 3 inches in diameter at the base when 10 to 12 feet high, would the suggestion to utilize them as **storm-breaks** be preposterous? Let it be remembered, also, that these stems should be cut before new growth commences, and that, if thoroughly dried, they make an excellent fuel.

Floods will not destroy it (we also venture to suggest), owing to the intricate webbing of its roots. Indeed, it has been recommended as a preventative against the encroachments of strong running streams.

Prairie fires could not kill the roots, which enter so deep into the ground. A proposition to grow it as a hedge is probably impracticable—(although the stems grow very close together, making it almost impenetrable)—unless it should be planted in considerable breadth. Under these conditions, if allowed to grow to its full extent, the tall shoots and foliage would certainly

Afford to cattle a refreshing shade from the torrid rays of the sun.

A Good Vegetable Plant.

As a vegetable plant for the table, Sacaline has been highly recommended. A writer in *Fleur des Serres* says that to him the blanched stems were more delicious than Asparagus. Messieurs Pailleux & Bois, in their work, entitled "Experiments with One Hundred New and Unknown Vegetables," praise it highly. Mr. Baltet and others also recommend it, stating that the leaves and stems, properly cooked, make an excellent summer vegetable. If the stems can be canned, like those of asparagus, the plants will certainly be eagerly sought for, inasmuch as they are produced until freezing weather.

As an Ornamental Plant. Polygonum Sachalinense has been offered by a few of our principal nurserymen only, who have admired its fine foliage, rapid growth and picturesque effect. However, at this date those who have it refuse to sell, preferring to hold their plants for propagation, a sure sign that a large demand is anticipated. Plants sent to this country years ago have been bought up by agents of French nurserymen, until to-day, after diligent inquiries, we have failed to find any plants for sale here, at any price.

Makes a Good Paper Pulp.

The proprietor of a large paper factory says that the stems and leaves can be macerated and used **as a paper pulp.**

Sacaline takes care of itself. It does not winter-kill nor burn in summer; needs no cultivation, manuring or replanting.

As a money-saver it will be invaluable, one acre of poor land producing more fodder than five acres of good land in clover.

No Insect Enemies.

Among all that has been written in regard to Sacaline, we fail to discover that the plant is ever affected by disease or by insect enemies. Clover and other forage plants are subject to fungus growth. Clover will not grow in wet soil, where Sacaline will revel. *Lathyrus Sylvestris* is extremely difficult to establish. Few, if any, of these are able to stand a drought of any length.

Cultivation and Planting.

The cultivation of Sacaline is very simple. Our experiments with the seed were not made until June, and the seed, being of last year's crop, germinated in about two weeks. Seed should be procured as early as possible, and sown in boxes of **very rich soil kept very wet**, and protected from frost. The plants should afterwards be set out three feet apart each way. The seed may also be sown where wanted, and the plants thinned out properly afterwards. By far the quickest result, however, will be obtained by procuring roots and setting these out at any time of the year three feet apart each way. They will begin to grow early, and soon cover the entire field. Plants with foliage will make even a quicker growth, but these should not be set out until danger of frost injuring the roots is past.

The roots can be planted even where other crops of grass, clover or lucerne are growing, as they will soon outgrow these.

Where very large tracts are to be planted, we would recommend the plants. Where economy is necessary, we would recommend the roots, as these can be carried in a bag by the planter and quickly inserted by means of a tool that will make a hole $\frac{1}{2}$ to 1 inch in diameter and 6 to 8 inches deep, into which the roots can be dropped and covered. In this way thousands can be planted by one man in a day.

Roots have been sent to all parts of the world, even to Japan, and have invariably reached their destination in good condition.

It is said that the ground need not be ploughed before the roots are planted, but it cannot be denied that ploughing and cultivating will materially increase the product of the first year. Such, at least, has been our experience. In dry countries, where irrigation can easily be made, we strongly recommend it; for while the plants resist long droughts with impunity, they grow more vigorously in wet soils.

Multiplies Rapidly. We have stated that young plants set out in the spring soon cover a space three feet square. Such a plant lifted in the fall will give at least 100 root cuttings. Each of these, if only one inch long, will, if properly planted, produce a good plant. A large plantation can, therefore, be set out at very little expense.

With the endorsements that follow, **we unhesitatingly recommend Sacaline as a forage and industrial plant of immense value to this country.** Its fame has spread from Europe to Japan, and even into Australia. That it will be welcomed in America is an assured fact.

What Mr. Baltet, of France, says about Sacaline.

As a forage and industrial plant the qualities of **Sacaline** have been practically studied and tested on many plantations in the Bourbonnais, Touraine, Champagne, etc., notably by Mr. Gustave Huot, the honorable president of the Horticultural Comity of the Aube, whose stables are always foremost at exhibitions for purity of strain and productiveness. The experiments of Mr. Doumet-Adanson and others, transmitted to the Academy of Sciences of Paris, by Mr. Duchartre, and the communications made by myself to the National Society of Agriculture, have brought **Sacaline** prominently into notice.

According to Mr. Doumet, *cattle, sheep and horses are extremely fond of the leaves and stems, both fresh and dry.* Mr. Edouard André has tried it under these conditions, and so have other growers. That cattle like it is quite evident, from the fact **that the analysis, which is given below,**

Clearly demonstrates its superiority in nutritive qualities over any other forage plant, even that of Clover and Lucerne.

ANALYSIS.

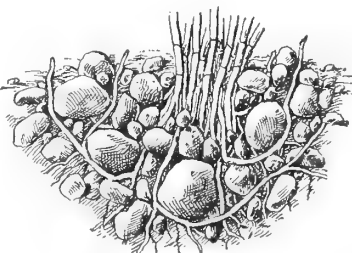
Water	36'4	Extractive matter, not nitrogenous	24'64
Organic nitrogenous matter	19'06	Mineral matters	7'4
Fatty matter	4'4	Phosphoric acid	1'57
Woody matter	8'1		

This analysis is much more favorable than that of Clover and Lucerne, which contain only 16 per cent. of nitrogenous and 3 per cent. of the fatty matters.

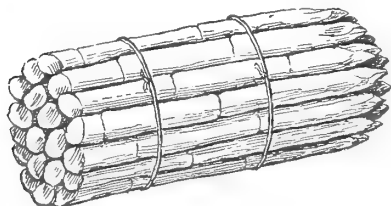
A native of Siberia, it has resisted the severest cold ever experienced in France, viz.: 30° Centigrade of cold in 1879, and + 40° of heat in 1891, 1892 and 1893, without the slightest injury.

All soils and climates suit our Sacaline. Once planted, it need not be touched. Its roots penetrate deep into the soil in every direction, developing new shoots yearly, and soon covering all available space. It needs **no cultivation, no manuring, no re-planting.** It will grow in marshes, dunes or swamps, as well as on the poorest soil.

For twenty years that we have had this plant in our possession, it received neither cultivation nor manuring, yet it forms to-day a superb specimen, growing ten feet high every season (see illustration on cover).



SHOWING ROOT GROWTH IN ROCKY GROUND.



A BUNCH OF ITS ASPARAGUS-LIKE SHOOTS.

The young shoots and leaves prepared in various fashions, furnish the table with an **excellent summer vegetable,** equal to spinach, chickory, or lettuce; while by some they are considered as rivaling **Asparagus.** In years of abundance, these shoots, if in excess of home requirement, can be used for industrial purposes.

Crop.

As soon as the stems attain a height of four to six feet, they can be cut close to the ground and fed to the cattle. If the second growth is vigorous, another cutting can be made. The last cutting is done in late autumn, before frost. The following years, three, or often four, cuttings can be made. **Used in ensilage, like corn, this is certain to prove a valuable nourishment for cattle in winter.**

Product in Green Forage.

According to the calculation of Mr. Doumet-Adanson, he does not hesitate to recommend this as a forage plant; in good soils it will produce from forty-four to eighty-eight pounds of green forage per square yard, or over 90 to 180 tons to the acre.

Mr. Charles Baltet, author of the above article, is a member of the house of Baltet Freres, founded in 1820. He is Laureate of the National Agricultural Society of France, of the National Horticultural Society, of the Pomological Society, the Society of National Acclimatation, the Society of Agriculture, the National Society for the Encouragement of Agriculture; author of "The Art of Grafting" (gold medal), "Treatise on Fruit Culture" (gold medal), "Action of Cold on Vegetables" (gold medal), "Popular Fruits," "French Horticulture" (gold medal).

As an illustration of the value placed upon the seed, we reproduce the accompanying price-list of Mr. Baltet:

100 seeds	\$1 60	1,000 seeds	\$12 00
500 seeds	7 00	5,000 seeds	50 00

There are probably over 350,000 seeds to the pound, and at \$50 per 5,000 seeds, one pound would cost \$3,500. (A. B. & Co.)

We read in the **American Agriculturist**, the authority on American horticulture:

A New Forage Plant from Russia, SACALINE (*Polygonum Sachalinense*),

was discovered by the Russian explorer, Maximowicz, in the Island of Saghalin,* situated in the Sea of Okhotsk, between Japan and Siberia. In 1869, Mr. Edouard André, the world-wide-known horticulturist, noticed it in the Jardin d'Acclimatation at Moscow, where it was exceedingly decorative, and brought it to France, telling us of its vigorous growth, both above and below ground. The roots branch on all sides, and pass horizontally from the rhizomes, **penetrating the hardest soils**, and giving origin to new shoots, which further increase the size of the clump. The stems are numerous and closely set. **They vegetate early, and soon attain a height of ten feet.**

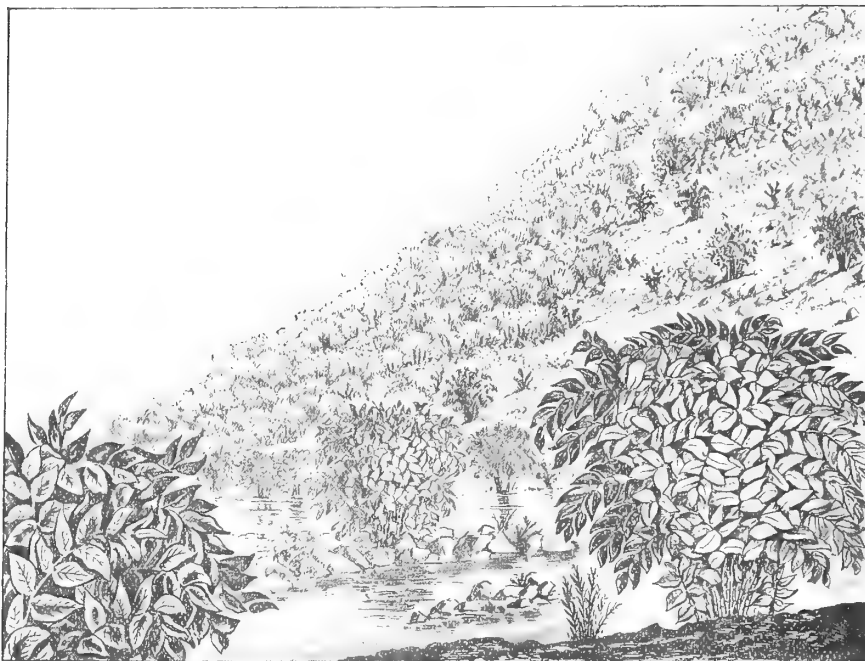
The foliage is most effective, and measures twelve inches long by four inches wide, smooth, with no trace of hairs. Dull white flowers appear in small axillary bunches, growing together in long paniculate clusters, which bend slightly under their own weight. The bees freely visit the plants in autumn, but bloom does not appear on plants regularly cut for forage purposes.

* *Saghalin*, or *Sakhalin*, is the name improperly given to a large island in the North Pacific, lying off the coast of Russian Manchuria. Its proper name is *Kavafu*, or *Kavafuto*. The climate is very cold, and a dense covering of clouds for the most part shuts out the rays of the sun. Saghalin has been inhabited since at least the Neolithic Stone Age, support being obtained by hunting and fishing. The Mongolian "Ainos," who are of great interest to ethnologists, are the aborigines. Recent efforts to colonize the island with convicts have encountered great difficulties from the quality of the soil.—*Extract from Encyclopædia Britannica.*

The experiments made at Baleine are sufficiently conclusive as regards the question of fodder. According to the President, Mr. Doumet, **cattle are extremely fond of it.** Mr. Edouard André has tried it under these conditions, also Mr. Gustave Huot, President of the Comité Agricole de l'Aube, and so have other growers, with equal success. The experiments of Mr. Doumet-Adanson on the forage uses of Sacaline, transmitted to the Academy of Sciences at Paris by Mr. Duchartre, and the communications made by Mr. Baltet, have brought the plant into notice.

Sacaline is extremely vigorous, bearing with equal indifference extremes of heat in summer and cold in winter.

A young plant soon covers a surface three feet square with its leafy branches.



Sacaline growing on dry rocky mountain and on wet lands.

The *first* cutting is made when the stems are from two to four and one-half feet in height. If the second growth is tall enough, a second harvest is gathered; but in each following year three or four annual cuttings can be made with safety.* It is said

* Professor Pammel, of the Iowa Agricultural College, states that on his station the plants made a growth of fourteen feet by June. It is therefore safe to assume that at least four cuttings can be made yearly, as the plants start to grow very early, and continue to do so until the foliage is cut down by severe frosts. Dr. Robert P. Harris, of Philadelphia, states that on the Pennsylvania Hospital grounds the plant grew at the rate of seven inches in a day.

that the total produce of green forage may range from about forty-four to eighty-eight pounds per square yard.

This would make a total of about 90 to 180 tons per acre in one year.

From "Garden and Forest."

Some years ago, a knot-grass, under the name of *Polygonum Sachalinense*, was introduced as an ornamental plant from the Garden of Acclimatation, at Moscow. It grew vigorously, and has been recommended for use on river-banks, and in other positions where tall and fast-growing perennials are needed. It is a rather handsome plant, with smooth green leaves, and leaf-stalks of cardinal red. Its flowers produce a good deal of nectar, and are much frequented by bees. This *Polygonum* has especial interest just now, however, as a forage plant, since it has been recommended in several European journals for that purpose. Young plants quickly push up fresh roots in all directions, and will soon occupy an area a yard square. *These shoots, when young, are edible*, and when blanched, they can be used as asparagus, although they are not of so high a quality. When they have grown from three to five feet high, these shoots can be cut and fed to cattle, which seem to relish them very much. It would be worth while to try the plant where no other forage plant will grow, especially since it has such endorsements as MM. Edouard André and Gustave Huot. Its yield of green fodder is said to be from 60 to 120 tons per acre, and it might prove a valuable crop for ensilage. It is in favor of Sacaline that it belongs to the same family as plants of such economic value as buckwheat and rhubarb.

FROM "GARDEN AND FOREST."

A Strong Testimonial—Tried in Iowa—Perfectly Hardy—Drought-Resisting.

The new forage plant.—There never has been a time when the question of forage plants did not merit consideration here. Portions of the West have passed through a drought such as we have not had for years. There can be no question that certain of our best forage plants have suffered seriously, and we shall have a thin stand next year. In *Garden and Forest*, attention is called to *Polygonum Sachalinense*, which has received such high praise in Europe. **It is certain that this plant will prove valuable in many parts of the United States, especially in the West.** It is not only perfectly hardy in Central Iowa, as far as cold is concerned, but it stands the dry weather remarkably well. We have had no rain to speak of since the latter part of July, but *this plant is as green at the end of September as it was early in July.* The root stock of this plant is sent out in all directions. The original plant has been in a dry place for many years, but in all this time it has not once been killed back. It is a remarkable grower. **Early in June stalks were fourteen feet high.** What is needed in the West is a plant that can be used in August and September when pastures are nearly always short. If the first and second crops could be used for the silo (it is said they can), the crop in August and September would be excellent for immediate use. Rape is now used to some extent, but the *Polygonum Sachalinense* would be easier to grow, as it does not require re-planting every year, as rape does.

PROFESSOR L. H. PAMMEL.

Iowa Agricultural College, Ames, Ia.

From Professor J. L. Budd.

Prof. J. L. Budd, of Iowa Agricultural College, says: "I found the plant in Russia in 1882, and introduced it as a botanical curiosity and as an ornamental plant. It still holds its place where first planted."

The old stalks dry up and stand erect. My assistant, Professor Hausen, has been in Europe all summer. He believes **it will prove very valuable in the dry West as a forage plant.** It is very hardy. It has stood here twelve years without cover. It proves quite a spreader; but one spot could be reserved for practical use as a fodder.

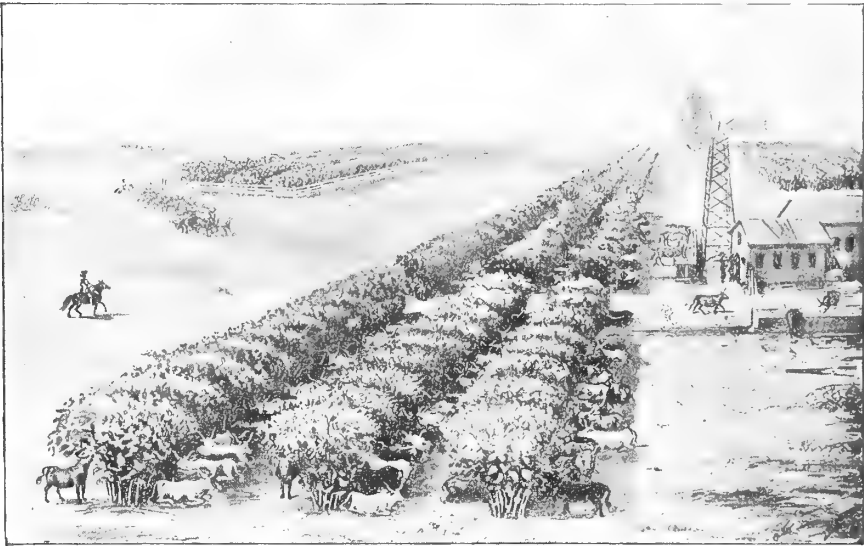
From the "Garden" (LONDON, SEPTEMBER 2, 1893).

In the protracted drought of the present season, Horticulture may be able to come to the aid of Agriculture just as, twenty-five years ago, the gardener's art helped the vine-grower out of his difficulties by showing him how to make use of the remedy of grafting vines on the phylloxera-proof American stocks.

The remedy in the present case is a robust and vigorous-growing plant, equally unaffected by excessive heat in summer and extreme cold in winter, namely, *Polygonum Sachalinense*, etc., etc.

Extract from the "Gardeners' Chronicle" (LONDON, JULY 22, 1893).

Few perennials have a nobler effect on the lawn, or wherever there is sufficient space, than *Polygonum Sachalinense*. One drawback it has, in that it throws its asparagus-like shoots about in profusion, and not always where they are wanted. A gravel path, as we know, offers no resistance to this very pushing intruder. We have cultivated this plant since its introduction for purely decorative purposes. The



A Suggestion for the South.

young white shoots are edible, but they do not rival asparagus. Its splendid foliage may be made use of for garnishing dessert and packing fruit.

The trials made in France on the forage uses of this *Polygonum* have called the attention of cultivators to it. The experiments made are conclusive as regards the question of fodder. The total yield can be reckoned at about 95 to 195 tons per acre. **Cattle are exceedingly fond of it.**

The cultural difficulties are not worth mentioning, and during winter no protection is needed.

We may add that the Sacaline is a forage plant with an assured future. Chemical analysis has demonstrated its superiority in nutritive principles over other fodders.

Compared with dried clover and lucerne, which contain only 16 per cent. of nitrogenous and 3 per cent. of fatty matter, the analysis is very favorable. In fact, it is shown that, without cultural care or cost of manure, Sacaline pros=

pers in all soils and all climates, cold, damp, dry, and by the seaside, and that its yield is so much more considerable, as its growth is prolonged until the autumn.

Its vegetative power is the same in sand, on banks, slopes, or in flat marshes. Its success in the South, as well as in the North, is assured, in spite of its Northern origin. The Government Report from South Australia declares that "The cattle and sheep relish it."

From the "Journal of Horticulture" (MAY 3, 1894).

The statement of a daily contemporary is that Lord Morton is growing the Giant Knot Weed, *Polygonum Sachalinense*, with a view to test its utility as a fodder plant. It grows vigorously on comparatively poor soils, and is not materially affected by drought. It is also being planted in many parts of France, where, it is stated, the succulent shoots are much appreciated by the cattle.

A Free Advertisement.

We observe that Mr. T. Christy, Malvern House, is making efforts to propagate the *extraordinarily heavy cropping fodder plant*, and he has a number of sprouted rhizomes to part with. We take this opportunity of mentioning the fact, several persons, both at home and abroad, being anxious to obtain sets of the plant.

EDITOR *Gardeners' Chronicle*, May 19, 1894.

From L'Horticulture Belge (GHENT, BELGIUM).

L'Horticulture Belge, after devoting three pages to favorable description of Sacaline, and endorsing all that other journals have said about it, states that Mr. Ed. Pynaert-Van Geert, the publisher of the journal, can offer plants to his readers at the rate of \$6 per twenty-five, for delivery next September.

From "Gardening Illustrated" (MARCH 24, 1894).

In reply to "J. B.," "R. S.," and others, this plant (here illustrated) is a native of the Island of Sachalan, is of a similar habit to *Polygonum Cuspidatum*, but larger, sometimes attaining a height of twelve feet. It has broadly oblong, bright green leaves, upwards of one foot in length. Its flowers are rather inconspicuous, being of a greenish white, and disposed in slender drooping racemes. It luxuriates in a moist subsoil near water, where it is very effective when in company with grassy vegetation. It makes a bold feature on the turf, or in a good position where it can develop its noble proportions. No better plant could be employed for semi-wild places, or for association with vigorous herbaceous plants on the turf in the pleasure-ground. For those whose gardens will not admit of such special places, the tuft on the end of a shrubbery will well repay the planter. It should not always be in the shrubbery, but just a few feet clear of it.

Sacaline in Germany.

We extract from a letter by Mr. Carl Weigelt, which appears in *Moller's Deutsche Gärtner Zeitung*, for June, that a risk exists to purchasers of seed of the above prodigiously productive fodder plant having *Polygonum Cuspidatum* palmed off on them in the place of it. The only right way to proceed, he says, is by propagation, and the planting out of the root stocks, or, at least, one-year-old seedlings. The true species has a future without a doubt. **A feeding trial gave astonishing results, the horses devouring P. Sachalinense with great greed, whilst they would not touch P. Cuspidatum, which was eaten only by the goats, animals which will eat what horses and oxen "nicht mögen."**

From the "Indian Agriculturist."

Sacaline is well known and greatly used as a forage plant in the province of Bengal. Here it assumes the same eminent growth as with us, penetrating the hardest soil and developing with astonishing rapidity.

The stems are numerous and closely set. They begin to grow early, and soon reach a height of twelve feet.

Experiments made prove, without fear of contradiction, its great value as a forage plant and the avidity with which cattle eat it.

The quantity of forage gathered here is from **250 to 475 tons per hectare** (2½ acres).

FROM "LE POTAGER D'UN CURIEUX."

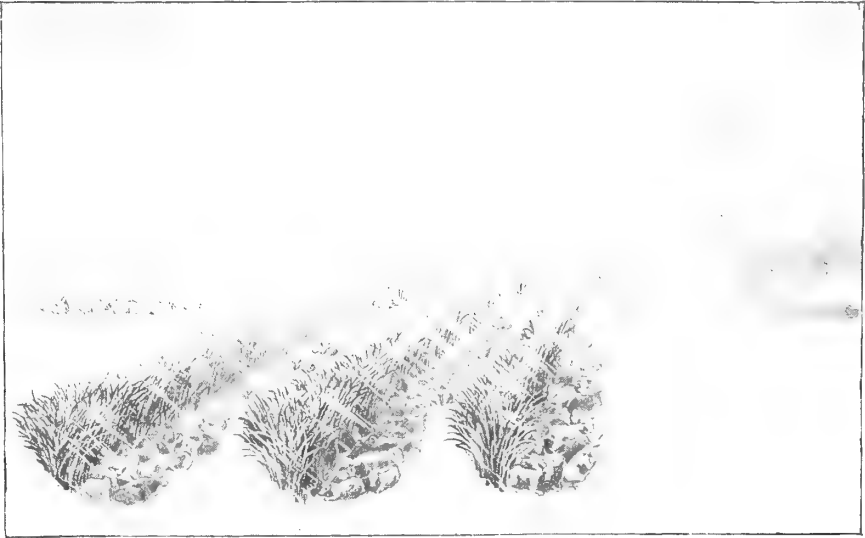
Sacaline as a Vegetable.

Mr. J. Weber was the first to recommend this as a vegetable in *Revue Horticole* (edited by Mr. Ed. André). A plant had accidentally been covered with dry leaves during winter; in spring, when these were removed, he discovered a dozen nice white shoots of the thickness of a thumb. They appeared so appetizing that he **had them cooked like asparagus**. "And," said he, "my hopes were not deceived; they were of a **very agreeable taste**, but, **being very tender**, they should be but slightly cooked."

FROM PAILLEUX & BOIS,

In "Experiments with 100 New Vegetables."

"We have covered young shoots of *P. Cuspidatum* and *P. Sachalinense*, and they have given us **very numerous and fine asparagus-like shoots, full, tender, and of slightly acid taste.**"



Sacaline as a storm-break ?

We have already eaten the young, asparagus-like shoots of Sacaline ourselves, several times during the spring and summer, and even as late as the 15th of October, and find them an agreeable dish. While not so delicious as asparagus, they will be welcomed by those who cannot grow asparagus. They should be thoroughly washed and allowed to stand in water for a time. Not being stringy like asparagus, they should be cooked quickly and served with a sour dressing or drawn butter. Some persons prefer to cut off the green tips.—**A. B. & Co.**

From Messrs. Vilmorin, Andrieux & Co., Paris,

In "Fleurs de Pleine terre."

"*Polygonum Sachalinense* is recommended as a new forage plant.

"It can be kept from spreading by gathering fresh soil and fertilizers on the old stools."

The Revue Horticole, of August, 1894, states that Sacaline—the forage plant in vogue—attains a height of six metres (20 feet).

Best Method of Cultivating Sacaline.

At the general agricultural meeting in Paris, some interesting specimens of the Sacaline were lately seen. After the experience of last year, when we sent considerable quantities of it in various directions, and obtained useful information concerning the success of different methods of packing, we should say that Root Stocks or Seed, well packed, bear very long journeys perfectly. Their stratification or first wintering in the ground being preferable, it is best to procure in winter, say, from January to April, seeds and root cuttings. On getting them, they should be stratified for multiplication with sand or sandy soil in a box or flower-pot, and protected from frost. The beds of root stocks or of seeds may be overlaid with a light layer of fine earth. In spring, when the buds of the stock begin to shoot, they should be placed in their final position, and thus vigorous roots of rapid growth are obtained. As to the seeds, when these begin to grow, on the appearance of the radicle, they should be treated like flower or vegetable seeds, sown first in a garden in good, rich soil, in rows; and afterwards put out into nursery beds, or in their final position. The double method of multiplication by roots and seeds enables a permanent plantation to be formed and combined. The roots at several yards apart yield early vegetation and well-established stock from the first.

Young plants raised from seed, planted at a distance of one yard apart, soon fill the intervening space and cover all the plot. The field under cultivation soon becomes covered, which is most economical and productive.

Sacaline a Remedy for Scarcity of Forage.

Le Jardin, of July 20, 1893, states that owing to the extreme scarcity of fodder in France, occasioned by the continued drought, **the Minister of Agriculture has issued circulars giving advice as to what plants could be used as substitutes for hay, and that Sacaline is recommended as such.** As this plant will not produce the greatest results the first year, it is recommended that farmers should import forage rather than sell their cattle at a ruinous sacrifice, which they have done to such a great extent.

From "*Le Jardin*" of June 5, 1894. (Mr. S. Mottet devotes three columns in this issue, describing minutely the growth, etc., of Sacaline.) "Among the plants proposed to overcome the scarcity of forage, Sacaline is certainly the one in which the greatest interest has been taken. In fact,

"There is not one journal, horticultural, agricultural, or even political, which has not spoken of it and strongly recommended it.

"Far from us the thought of saying that the Sacaline does not possess the marvellous qualities assigned to it as a forage, ornamental or economical plant. We think, on the contrary, that it can be utilized with profit in many given cases.

"It is on the borders of the streams, ditches, etc., that the Sacaline makes the most prodigious growth. Undoubtedly it will resist drought and grow in poorest soil, owing to the depth of its root work, but its product will be much smaller."

Five Columns in *Le Jardin*.

Mr. H. Martinet, Mr. J. Gerome and Mr. H. Sagnier devote *five columns* to Sacaline and *P. cuspidatum*, in *Le Jardin*, of May 20, 1894, discussing their origin, merits and demerits. Among other things, they say:

"Cultivated as an ornamental plant, the Sacaline has a fault of spreading too rapidly beyond the limits assigned to it, and it is difficult to eradicate." (This, we think, is **one of the great claims in its favor as a forage plant**; for this purpose we need something that cannot be killed, pulled out, or readily destroyed. We do not recommend planting it on valuable soil, but on waste lands where nothing else will grow—swamps, ditches, meadows, rocky or sloping lands that cannot be cultivated—but, at the same time, we would not hesitate to devote a good acreage to it wherever cattle are kept in quantity.)

From "Le Jardin."

Sacaline for Game Preserves.

We are not aware that Sacaline has been recommended for forming game preserves in forest clearances, or for marshy places not used for cultivation, where its spreading propensities can be no objection. However, we give the idea for what it is worth, and we would advise our readers to try it. A proprietor friend of ours has already, upon our advice, planted a quantity of it for this purpose.

The great claims made for *Sacaline* have created a large demand for the seed, which certain merchants have been selling at the rate of 4,500 francs per kilo (about \$400 per pound). It has also induced unscrupulous parties to substitute seeds, roots and plants of another variety, *P. Cuspidatum*, which has no value whatever as a forage plant, for the true *Sacaline*, which is very scarce here.

Lengthy articles appeared also in the *Journal d'Agriculture*, in *Le Journal* and in *Le Petit Journal*, all showing that the plant has really created great excitement abroad.

Sacaline—Its History and Discovery.

Extract from *Revue Horticole*, of Paris, February 4, 1894, which devotes three full pages to *Sacaline*.

The *Sacaline*, or *Polygonum Sachalinense*, was discovered in September of 1853, by Dr. Weyrich, and not by J. C. Maximowicz, as erroneously stated (J. D. Hooker in *Bot. Mag.* t. 6540), on the Island of Saghalin,* near Notosama. The plant was in bloom and spread over large areas of submergable land in continuous masses. It is from herbarium samples that F. Schmidt described it in *Primitine Floræ Amurensis*, of Maximowicz. How was it introduced into Europe? This is not yet accurately known. The first plants that I saw in Moscow in 1869, and those which I brought to France, had already been for some time in Russia. Sir Joseph Hooker remembers what I stated in regard to it, a record of which will be found in my book, "One Month in Russia," published in 1869. He adds that the plant had already been grown at Kew for some years, having been sent there by Oldham or Wilford, English collectors. Some years after 1870 (when it was already in France and England, where W. Bull introduced it), a horticulturist from Ghent (Van Houtte?) sent it to the Paris Museum, where it bloomed for the first time in 1875. Dr. Masters had already spoken of it as an ornamental plant of great effect for parks, and it was everywhere considered as such. **It took twenty-three years before its great value as a forage plant was discovered**, and it was owing to the scarcity of forage during the severe drought of 1893 that the idea occurred to Mr. Doumet-Adanson to bring it to light.

EDOUARD ANDRÉ, in *Revue Horticole*.

Where Sacaline is needed.

FROM "GARDEN AND FOREST," NOVEMBER 15, 1893.

The face of the country from Laredo to San Diego, about 100 miles, does not differ materially in aspect from the country along the railway from Laredo to San Antonio, and the forests are composed of nearly the same kinds of shrubs. The country is more sandy, apparently more sterile, and shows less sign of civilization. Around the little village of Pena, the deep sand is blown and drifted like snow. It needs only the presence of Arabs and camels to make it a literal desert. But a few miles back we have seen an **artesian well of moderate depth overflowing from a six-inch pipe**. Such wells may prove the material salvation of this region.

This part of Texas is mainly a cattle country. The occasional windmill towers, which the traveler may see from the car-windows, usually mark the location of the ranches. Vast tracts of land are held by the cattle-kings of Texas, containing from ten thousand to five hundred thousand and even a million acres. These ranges are valuable for stock-raising, because the original cost of the land is a mere trifle, and the present taxes are merely nominal. The present drought, of nearly three years' duration, has caused great losses of live stock through this region. It was told at Alice that, during the period of the drought, six hundred carloads of cattle-bones, gathered from the pastures, have been shipped from that station. All stock-raising in such a loose way is destructive to civilization, and to the natural wealth of the country. Even merely pastoral countries gradually become a desert. The tendency is always to overstock the range. To destroy and then to seek new pastures is the rule. A region depastured by cattle, swine, sheep and goats will rapidly change for the worst; and every plant and tree, whose leaves, fruit or roots any of those animals use for food, will, sooner or later, disappear.

Our Sacaline would certainly be a gold mine to this section of the United States.

*The Germans say Sachalins, hence the "Sachalinense," given by Schmidt, should be used.

Where to Plant Sacaline.

Improving the Cattle Pastures.

GEORGE E. NEWELL, NEW YORK.
FROM THE "AMERICAN AGRICULTURIST."

There is not one pasture out of fifty, in the Middle and New England States, that could not be made to produce an increased amount of feed, and of improved quality. Nearly every dairy farm contains more or less boggy land that is sodded over with a growth of ridges and marsh grass, which cows will not eat. This moist land is worth far more for grass than the dry soil about it, as it is richer and always moist. In its present condition, it is too moist to support timothy and clover, and needs some draining to make it available. Then, plowing and seeding to nutritious cultivated grasses would make it the most profitable pasture land on the farm.

There are often large tracts upon the hillside fields of a soft, springy character, and covered with bog grass, which cannot be made dry enough by drainage to support even upland grasses. Such soil should be drained as well as possible (no draining required for Sacaline), and seeded to red-top, of which cattle are very fond. Besides the waste marsh land, the pastures may be studded with sterile knolls, supporting a growth of ferns, or other worthless vegetation, and these are also waste places. A limited amount of labor will eradicate the unprofitable growth, and clothe these spots with sweet, nutritious grass. But some say, "Why should one be so particular about reclaiming these little corners, when land is plenty?" Every successful farmer and dairymen knows that it is not what land he owns, but the land he cultivates that yields a profit. It is vitally important that the fertility of dairy farms should not retrograde, as sterility of the soil would mean dairy failure. (Sacaline will enrich your land if plowed under.—A. B. & Co.) It is better to realize this now than to wake up to the fact after the ruin has come. We should reclaim the waste places in our pastures, and husband the fertility of our dairy farms. No systems of feeding can wholly supplant nutritious and reliable pasturage, and on its permanency rests the future stability of dairying. The sources of springs should be jealously guarded, and where it is expedient to drain an excessively moist spot in the pasture (there is where Sacaline will grow.—A. B. & Co.), the outlet should be directed, if possible, to a dry portion of the field, that the surplus water of one part may freshen the arid spots of another.

The space in a pasture taken up by bushes, briars and weeds is waste ground, but that occupied by a judicious sprinkling of shade trees, well occupied. There is no reason why pasture land should not produce a third more grass than at present. But it does not follow that a third more cows could be supported on the increased growth of grass. **The cows at present do not have all that they could graze, and that is one reason why they do not yield more milk.** In the matter of feed, always give the cow the benefit of the doubt; in most cases, more food can be supplied with profit. (Sacaline will, at all times, give more fodder on one acre of land than five acres planted to any other crop.)

River Lands in the South.

EDWIN MONTGOMERY, MISSISSIPPI.

The lowlands near the rivers are the richest soils in the South, and, of course, are the best. To be profitably utilized for cultivation, they must be properly drained. If they are to remain too wet for satisfactory cultivation, they are valueless, so far as farming them is concerned. The lowlands are continually being enriched, by reason of overflows that leave a valuable sediment upon them. A large share of the fertility of our uplands in the South is constantly being washed away by reason of the imperfect methods of managing them, and this soil fertility is much of it deposited on the lowlands, and is lost where the lowlands are not well enough protected against the floods to invite profitable cultivation with plow and hoe; they can best be utilized by putting them down to grass, permanent meadow. The grass will hold the soil from washing, and catch and retain rich sediment. There are many grasses that would prove very profitable in such soils, especially Bermuda and Timothy, and even very many of our native wet land grasses that now seem to be of so little agricultural value. Japan clover, *Lespedeza striata*, would succeed admirably in such soils if not excessively wet. Grasses grown on such soils would be necessarily more nutritious than if grown on less fertile lands. We cannot afford not to utilize these rich lands to the very best advantage possible, and there is no crop that will pay on them so well as a grass crop.

Clover and Some of its Enemies.

PROF. L. H. PAMMEL, IOWA EXPERIMENT STATION.

Clover rust, during the last three years, has become a serious enemy to rowen or second crop clover, at least in Iowa. The fungus causing this disease is called *Uromyces trifolii*, and is related to common wheat rust. It has long been known to occur on white clover in this country, although first observed on red clover by Professor Underwood, in 1888, near Syracuse, N. Y. It has now been reported in other localities in the United States. Miss Howell, writing about this disease near Ithaca, N. Y., says: "The disease has not been long known in America, but has prevailed to such an extent during the several wet seasons preceding 1890, in many sections of the Northern States, that it must be regarded as a disease likely to affect seriously, under conditions favorable to its development, a fair crop." I have seen it so common at Ames, that, in picking clover, my hands became covered with the brown spores.

We will furnish electrotypes of cuts in this pamphlet to journals desiring to call the attention of their readers to the value of this "New Forage Plant."

SACALINE.

(Polygonum Sachalinense.)

THE NEW FORAGE PLANT.

Is perfectly hardy even in Siberia—Flourishes in the Indies.

Requires no plowing before planting.

Needs no cultivation, no manuring, no re-planting.

Roots penetrate deep into the soil.

Once planted, stands forever.

Endures severest drought with impunity

Grows in poorest soils. Luxuriates in wet lands.

Thrives where no other forage plant will grow.

Young shoots and leaves eaten as a vegetable.

Stems and leaves, green or dry, greatly relished by cattle, sheep and horses.

More nutritious than Clover or Lucerne.

Gives three and four cuttings per year.

Produces 90 to 180 tons of green forage per acre.

Grows 14 feet high by June.

Excellent soil enricher. Planted at any time.

Affords shade to cattle in Summer.

Protection against storms in Winter.

Floods will not destroy it. Fire will not kill it.

Cattle cannot trample it out.

Seed has been sold at \$1,000 per pound.

Endorsed by the highest authorities.



First introduced as a forage plant by

A. BLANC & CO.,

PHILADELPHIA, PA.

Favorably described and noticed by editors

of "The American Agriculturist," "Garden and Forest," "The Garden," "Gardeners' Chronicle," "Gardening Illustrated," "The Journal of Horticulture," "Revue Horticole," "Chronique Horticole," "Le Jardin," "Revue de l'Horticulture Belge," "Le Petit Havre," "Le Petit Marseillais," "Le Provençal," "Moller's Deutsche Gartner Zeitung," "The Indian Agriculturist," "The Practical Farmer," etc., etc.,

extracts from which will be found in

illustrated pamphlet sent on application.

SACALINE.

The New Forage Plant.

WHAT IS SAID ABOUT IT.

From L. H. Bailey, *Professor of Horticulture, Cornell University.*

"We are growing *Polygonum Sachalinense* this year for the first time. From everything which I can learn from other sources, I am prepared to believe that it will be a valuable plant for many parts of the country."

From Mr Samuel Wilson, Seedsman, Mechanicsville, Pa.

"I want something extra-good in the shape of a Forage Plant. The most of our fall catalogues go to Texas, Arizona, New Mexico, and other places where an everlasting Forage plant is needed, something that will grow in dry places without irrigation, and will flourish on the burning sides of volcanic mountains. This, your NEW AND WONDERFUL FORAGE PLANT will do. We have a plant sent by you, growing on our grounds. It seems to get right up without any care or trouble, and spreads rapidly. Now, what I want to know is whether you will not let me put it in my Fall Catalogue, and get it introduced into these dry countries. This would certainly help your sales next spring, and for a long time to come."

Mr. Wilson backed up his good opinion of Sacaline with an order for 30,000 plants.

From Mr. Chas. I. Cragin, Philadelphia, Ex-President of the Cragin Cattle Company.

"I am sure that your *new forage plant* will be a great thing for the Cattle Ranges of the Southwest."

From Gabriel Du Val, Attorney-at-Law, Baltimore, Md.

"What you write about the new fodder is, at least, interesting, and as in this age every intelligent farmer should, I think, be ready to take advantage of any new and successful agricultural experiment, I am disposed to give your plant a trial. Anything in the way of long fodder as feed for stock approaching the nutritious quality of timothy or clover, hay, or, indeed, corn-fodder, would unquestionably be valuable. I have a bit of meadow which, from what you say, I think would be suitable for a trial, but I would not care to put in more than half, maybe one acre, as a first planting."

From Mr. W. R. Smith, Director of the White House Gardens, and Ex-President Society of American Florists.

"It is a plant of immense value to cattle-raisers. Come to Washington and call the attention of the Agricultural Department to it."

From Mr. Robert Craig, Ex-President of Society of American Florists.

"Your Sacaline is certainly a wonderful plant. It has made tremendous growth. I have fed it to horses, and they seem to like it."

Dr. Wm. Van Fleet, Editor of *Success with Flowers*, says:

"I have taken a hundred plants of Sacaline to my farm in Virginia, where fodder is extremely scarce. It will certainly be of great value in that state."

From Antoine Wintzer, West Grove, Pa.

"The farmers around here are very much interested in your new forage plant. I have no doubt you can sell thousands of it here as soon as you have sufficient stock. I am propagating the plants sent to me to their utmost capacity."

From Charles H. Allen, Floral Park, L. I.

"What I hear and have read about Sacaline assures me that it will become a valuable forage plant. As soon as you are ready to put it on the market I want a large number of the plants."

From Major Albert Bonnafon.

"I have lived among cattle-raisers in the West for years. If half of what is said about Sacaline is true, it will revolutionize cattle raising in the West, and turn worthless lands into rich and valuable grazing grounds. Stock raisers will be hungry for it, and you will not be able to raise enough plants to supply the demand. There is a fortune in it for *you*, if you do not let anyone get ahead."

From Mr. F. B. Mills, Rose Hill, N. Y.

"You may reserve for me 20,000 roots of Sacaline and ten pounds of the seed."

From John A. Salzer Seed Co., Lacrosse, Wis.

"Book our order for 10 pounds of Sacaline in addition to 25 pounds ordered before."

From George W. West, Shelly Bay, Bermuda.

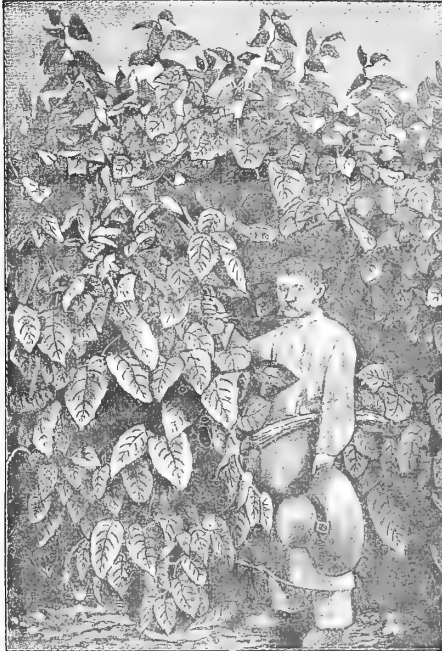
"If Sacaline does one-fourth of what is said about it, it will certainly prove a most valuable plant for the West Indies, where we need forage at all times. I should be pleased to introduce it here, and will undoubtedly call the attention of our government to it."

From Mr. John German, Haddonfield, N. J.

"I planted the root of Sacaline which you sent me in the driest spot on my farm, where clover and even grass would not grow. Yet in three months it made a solid bush three feet high and sixteen feet in circumference. Not a leaf wilted during a drought of nearly ten weeks."

PRICES OF SACALINE, The New Forage Plant.

PLANTS.



SACALINE—THE NEW FORAGE PLANT.
Showing two months' growth.

Our stock of plants and roots will not be ready for delivery until December 1st. All orders will be filled in rotation as received. We will deliver strong and well-rooted plants from 2½-inch pots, that can be set out at once in mild localities.

Prices for Delivery December 1 to March 15.

100 plants	.....	\$ 10 00
1,000 "	.....	75 00
5,000 "	.....	350 00
10,000 "	.....	675 00

Prices for Delivery after March 15, 1895.

100 plants	.....	\$ 8 00
1,000 "	.....	70 00
5,000 "	.....	325 00
10,000 "	.....	600 00

SEED OF SACALINE.

Our stock of Sacaline Seed is at this date nearly all engaged; we have but a limited quantity remaining unsold. Delivery will be made as soon as fresh crop is received—probably by December 1st, or sooner (there are nearly 100,000 seeds to one pound).

1 ounce	.....	\$ 2 50
½ pound	.....	15 00
1 "	.....	25 00
5 "	.....	100 00

Special prices for larger quantities.

These prices are without engagement, subject to being unsold, and likely to be increased. Introducer's price to-day, \$40 per 10,000 seeds. Unknown customers will please give satisfactory references.

The principal Seedsmen and Nurserymen have agreed to make the retail price for Plants 25 cents each, three for 60 cents, six for \$1; Seed, 15 cents per packet.

CAUTION.

The great demand for Sacaline, and the consequent scarcity and high price, has induced certain parties to offer *Polygonum Cuspidatum* under the name of *Polygonum Sachalinense*. Plants received from several firms (even the one which supplied the Agricultural Department at Washington) proved, with one exception, to be *Cuspidatum*. Seed, which has been sent at a low price to prominent seedsmen, has also proved to be spurious.

Our plants are the genuine species. We have propagated and grown everyone of them ourselves.

Ordered by the United States Agricultural Department.

The Agricultural Department of Washington, D. C., has purchased a large number of plants of Sacaline for distribution among the various National Experimental Stations.

From Prof. J. L. Budd, Iowa Agricultural College, Department of Horticulture, Ames, Iowa.

"We got our *Polygonum Sachalinense* (Sacaline) in Russia. You are right; your large leaf is a true species. The old stalks dry up and stand erect. My assistant, Professor Hansen, has been in Europe all summer. He believes Sacaline will be very valuable in the dry West as a forage plant. It is very hardy, and has stood here twelve years without cover, and proves quite a spreader from the running roots. It may not be easy to get rid of in crop rotation, but one spot could be reserved in practical use as a fodder."

We will furnish TO THE TRADE OUR FORAGE-PLANT PAMPHLET, 16 pages, illustrated, printed on LIGHTER PAPER than copy herewith, at the following rates:

100 for \$2, 500 for \$8, 1,000 for \$15, 5,000 for \$65.

Our name does not appear on these Pamphlets. Purchaser's name can be printed on cover at an extra cost of \$1 for 100, \$2.50 for 500, \$3.50 for 1,000; no extra charge on 5,000 lots.

OFFICE,

314-316 North Eleventh St.

A. BLANC & Co.,

Philadelphia, Pa., U. S. A.

Electrotypes will be furnished free to Horticultural Journals, also to Seedsmen and Nurserymen ordering a liberal quantity of Plants or Seed.

NOVEMBER 1st, 1894.

its introduction into France, for
The young, white shoots are eatable, but they do not rival
asparagus, though its splendid foliage may be made use of for



SACALINE (*Polygonum Sachalinense*)

garnishing dessert and for packing fruit. Moreover, the experiments of M. Doumet-Adanson on the forage uses of our *Polygonæ* transmitted to the *Academie des Sciences* of Paris by M. Duchartre, and the communications I have made to the *Societe Nationale d'Agriculture* of France have brought the plant into notice, and called the attention of farmers to it. The **Sacaline** was discovered by the Russian explorer, Maximowicz, in the Isle of Saghalin, situated in the Sea of Okhotsk, between Japan and Siberia, a moderately large island, ceded to Russia by Japan in exchange for the Kurile Archipelago. In 1869, Edouard André noticed this new introduction, in the *Jardin d'Acclimatation* of Moscow, where it was exceedingly decorative, and brought it into France, telling us of its vigorous growth both above and below ground. **The roots branch on all sides, and pass horizontally from the rhizomes, penetrating the hardest soils and giving origin to new shoots which further increase the size of the clump.** The stems are numerous and closely set; they vegetate early, and are not long in attaining a height of **nearly ten feet**. Small, long, zigzag ramifications develop in the middle and at the top of the luxuriant plant.

SACALINE is offered to the trade in seeds and
plants by **A. BLANC & CO.**, Philadelphia, Pa.
Send for Illustrated Pamphlet.

The total produce of the green forage may range from about **forty-four to eighty-eight pounds per square yard, (or ninety-five to one hundred and ninety green tons per acre.)** According to the observations of the president, M. Doumet, cattle are extremely fond of it. M. Edouard Andre has tried it under these conditions, also M. Gustave Huot, president *du Comite Agricole de l'Aube*, and so have other growers with equal success. The **Sacaline** has not yielded seed in this climate, so it has to be multiplied by the rhizomes. The best time to plant it is in August and September, or in spring. An ordinary soil suffices: nevertheless, a little extra moisture serves to increase the strength and facilitate a second green crop. During the winter no protection is needed. The dormant stems should be cut down in spring before the new buds develop. In spacing the plants, allow for three feet of ground being covered by the abundant and nutritive vegetation.

THE NEW FORAGE PLANT,—“SACALINE.”

There never has been a time when the question of forage plants did not merit consideration here. Portions of the West have passed through a drought such as we have not had for years. There can be no question that certain of our best forage plants have suffered seriously and we shall have a thin stand next year. In *Garden and Forest* attention is called to **Polygonum Sachalinense (Sacaline)** which has received such high praise in Europe. It is certain that this plant will prove valuable in many parts of the United States, **especially in the West.** It is not only **perfectly hardy in Central Iowa**, so far as cold is concerned, but it stands the dry weather remarkably well. We have had no rain to speak of since the latter part of July, but this plant is **as green at the end of September as it was early in July.** The root stock of this plant is sent out in all directions. The original plant has been in a dry place for many years, but in all this time it has not once been killed back. It is a remarkable grower, **early in June** many stalks were **fourteen feet** in length!!—What is needed in the West is a plant that can be used in August and September when pastures are nearly always short. If the first and second crop could be used for the silo (it is said it can) the crop in August and September would be excellent for immediate use. Rape is now used to some extent, but the *Polygonum Sachalinense* would be easier to grow as it does not require replanting every year as rape does.

Professor L. H. PAMMELL.

Iowa Agricultural College, Ames, Iowa. — In *Garden and Forest*, October 11th.

THE ANALYSIS OF STEMS AND LEAVES OF SACALINE IS AS FOLLOWS:

Water	36.4
Organic Nitrogenous matter	19.06
Fatty matter	4.4
Woody matter	8.1
Extractive matter not Nitrogenous	24.64
Mineral Matters :	7.4
Phosphoric Acid	1.57

This analysis proves **Sacaline to be more nutritious than Clover or Lucerne**, which contains only 16% of Nitrogenous matter and 3% of fatty matter.—C. BALLET.

SACALINE is offered to the trade in seeds and plants by **A. BLANC & CO., Philadelphia, Pa.**

Send for Illustrated Pamphlet.



SACALINE (*Polygonum Sachalinense*).

Photo. of one year's growth of a twenty-year-old plant, which has never been cultivated, manured or replanted.

A. BLANC & CO.
PHILADELPHIA, PA.