## WHY TAFT OR ROOSEVELT?

**Prices of Food Products Have Soared Under Them, Yet They Promise Reductions.**

According to the bulletin of the federal bureau of labor the average price of a dozen or more of the principal articles of food has increased 30 per cent in the last ten years.

The price of flour has increased 39 per cent, lard 55 per cent, steak 39 per cent, hams 61 per cent, cornmeal 63 per cent, rib roast 63 per cent, round steak 84 per cent, pork chops 86 per cent, bacon 96 per cent and Irish potatoes 111 per cent.

During these ten years of rising prices Roosevelt and Taft were at the head of the government. Both of them want to be at the head of the government again.

Does any sane man believe that if these men in ten years did nothing to retard the rise of prices which are oppressing the people they would do anything in four years? Rather, judging by the past, we should be paying approximately 25 per cent more than we do now, or 75 per cent more than we did ten years ago.

### JAPANESE SEE INTERIOR.

Morizo Ida, Japanese consul at Portland, with an associate, was here last week gathering information relative to this territory. From here he made trips to Silver Lake, Prineville and Laidlaw. The data he gathers is tabulated and kept at the Portland office for the benefit of Japanese business men and others. There are, says Mr. Ida, 1000 Japanese in Portland and about 3000 in Oregon.

### NOTICE.

Bend, Ore., Oct. 28, 1912.

I have sold my interest and good will in the Central Oregon Brokerage Co. to Ward H. Coble. I have no further interest in the Central Oregon Brokerage Co. and am in no way responsible for any of its liabilities.

E. M. LARA.

(Legal Advertisement)

**Mrs. Stevenson makes a specialty of 25 cent dinners, families especially invited Sundays. Ladies' rest room in connection. 32tf**

(Advertisement)

## DRY LAND FARMING

(Continued from Page Three)

semi-arid areas. In the eastern portion of this area these are usually sectional, and in some instances the silt particles in them are so light that they lift more or less with the wind. In the Inter-mountain region these areas are more pronounced. In some parts of the valley of the Columbia they cover wide areas, and the same is more or less true of the Big Basin country. In many instances sandy soils maintain but little growth while yet untilled, hence oftentimes they have a barren aspect.

In dry areas sandy loam soils are among the best, whether viewed from the standpoint of production or from that of tillage. These soils encrust and compact less readily than other soils and they do not lose water so readily by evaporation. They may be tilled at almost any season of the year not locked with frost. They warm more quickly in the spring, and are therefore more favorable to early growth. Their value, however, is much influenced by the degree of the clay which they possess. When too lacking in clay or silt particles, they become leachy.

**Silt Soils.**

Silt soils are composed of soil grains that have been deposited mainly through the action of water. The particles of which they are composed are usually small and fine, much smaller and finer than the average sand particles and larger than the particles of clay soils. They are of varying degrees of fineness, dependent on the extent of the reduction of the sand particles which compose them. In some instances they are possessed of much uniformity in texture, and this may extend to a great depth. In other instances they are intermixed with gravel more or less coarse and they are not infrequently underlaid with a subsoil of coarse gravel which may come up near to the surface. In yet other instances these soils are so impregnated with fine clay particles that they lose much of their silty character and assume more the character of a clay soil. If alkali is present these soils may assume a gumbo character. True silt soils are relatively rich in the elements of plant food and are very easily tilled, but they frequently lose moisture easily by leaching, and they are much liable to wash.

Silty soils, sometimes called alluvial soils, are found to a much greater extent in the valleys that line the streams than elsewhere. These valleys in western areas are usually relatively large, hence the area embraced as silt is quite considerable. These soils are also found in areas of considerable size that were at one time the beds of ancient lakes.

The relative value of silt soils depends largely on their composition. True silt soils that are also deep and uniform in their composition are usually very rich. This may also be true of soils that are less uniform in composition and texture. As a rule they are also easily tilled. But they, in very many instances, allow water to pass down through them so easily that crops grown on them in dry areas in the absence of irrigating waters are much liable to be injured by drought. The author has found it much more difficult to grow good crops on these soils in dry years than on the average bench land soil. When these soils were underlaid by gravel, even some considerable distance below the surface, the loss of moisture was increased. When the gravel came up quite close to the surface good crops could not be obtained, even in seasons that were reasonably moist, in the absence of irrigation. When the gravels were mixed with silt, the results were much less harmful, just as the gravel subsoils on bench lands that come up near the surface are much less harmful when they are mixed with a goodly sprinkling of clay. The summer temperature is also considerably higher in those river basins than on the benches and the rainfall is usually somewhat less. These conditions add to the difficulty of getting good crops from such soils in the absence of irrigation.

**Volcanic Ash Soils.**

Volcanic ash soils, as the name implies, are composed of very fine particles resembling ashes in their fineness and in the ease with which they may be dissolved and carried away by the action of the water. They owe their existence to the action of volcanoes in eruption in primeval centuries. The particles which compose them are very fine, finer than the particles found in silt soils. These more than any other soils found in the west, are flocculated in character, which means that the exceedingly fine particles which compose them are gathered together into little flocks, as it were, through the action of lime, which tends to bind them together. Were it not for this binding process, plants would be unable to live in the soil. Organic matter also helps these soils by keeping asunder the particles of the same.

These soils cover considerable areas of the far western states, especially of the Inter-mountain regions. They are found not only in the valleys, but also on the higher elevations. In many instances they are found without intermixture and of much depth. In other instances they are more or less mixed with the substances which tend much to modify their character.

Volcanic ash soils are exceedingly high in the elements of plant food, especially in the mineral elements of the same. They have great wearing power, and as a result under fair treatment will grow many successive crops without showing any indication of a waning fertility. They are also easily tilled. They do not bake readily in the sense in which hard clay soils bake, but they do incrust on the surface more or less after rain, as nearly all soils do that are low in organic matter. This is the great lack of volcanic ash soils, and it furnishes one explanation of the ease with which they are gullied and carried away by the action of water. The adaption of these soils to a great variety of production when sufficiently supplied with water is simply marvelous.

**Gumbo Soils.**

Gumbo soils are soils that are possessed of enough of the elements of alkali to make them adhesive, and yet these elements are not sufficiently adhesive to make tillage impracticable, although it may be and is usually difficult. These soils may contain much clay. They usually do, but they may also contain some sand. They are so adhesive that when dry it is exceedingly difficult to plow them. They turn up in great chunks which it is impossible to pulverize until they are softened by rain, which acts on them much as it does on unslaked lime. If worked when wet they adhere to the implements of tillage to such an extent as to make tillage virtually impracticable. In order to till them, advantage must be taken of those periods when moisture is present in that degree which makes tillage practicable, and when it is not present in that degree which will result in the baking of the land after it has been worked. This narrows very considerably the season of the year during which gumbo lands may be successfully tilled. The highways in areas where gumbo soils prevail are almost impassible in time of wet weather. Owing to the adhesive character of these soils when wet it is almost impossible to drive a vehicle along the highways because of the accumulation of plastic soil which adheres to the wheels.

Gumbo soils are not generally present in extensive areas in the dry west. They are more commonly met with in river basins and in depressions on the higher lands, oftentimes they are found in spots of more or less size in areas where the soil is easy of tillage. That they are found to a greater extent in river basins than in other areas is fortunate, since it makes it impossible to run irrigating waters over them in many instances in a way that will render great service in their tillage. But on other land such aid is, of course, impossible.

Gumbo soils are rich. They are generally speaking unusually rich, hence their power to wear is unusually good. If brought into a proper mechanical condition, they produce enormous crops when the conditions are all favorable. But frequently the conditions are not favorable. The moisture in the spring may retard tillage at the right season. The lack of moisture in the autumn may render tillage impossible. It may also hinder the sprouting of grain sown at that season. Under nearly all circumstances the fine pulverization of the land is difficult.

Experience in handling these lands has shown that when they are judiciously worked and cropped they become more tractable, so to speak. Especially is this true when coarse farmyard manure is buried in these soils or when green crops grown on them have been plowed under. When the necessity is imperative for working these soils, the aim should be to grow on them alfalfa as far as this may be practicable. In most seasons this crop succeeds well on them, but in dry seasons it will, of course, grow less well. The roots of the alfalfa tend much to improve the physical condition of these soils when they are broken up.

**Alkali Soils.**

Alkali soils are soils in which the solution of certain soluble salts is so strong that plants that may germinate on them cannot take up the moisture in the soil, insomuch that though they should germinate they soon perish through lack of moisture. It is of two kinds, known as white and black alkali respectively. White alkali is largely due to an accumulation of common salt, glauber salt and epsom salt. These give it the white color which characterizes it. It is a mixture of the sulphates and chlorides of soda and magnesia. The most harmful effect from the presence of white alkali is that it retards or entirely prevents germination in the seeds. Some crops, however, will stand as much as one-tenth of one per cent of white alkali.

Black alkali is due to the presence of carbonate of soda along with the aforementioned salts. It dissolves the vegetable matter in the soil and gives it this dark color. It tends to consolidate the soil in proportion as it is present. In some instances, because of the previous nature of the soil, the black appearance may not come to the surface and yet there may be much carbonate of soda in the subsoil. When it is present in any considerable quantity, the soils which contain it are practically untillable during the dry portions of the year. One-tenth of one per cent of black alkali will prevent the growth of useful plants. Nevertheless in small amounts the alkalies are quite helpful in promoting vegetation. Plants will be much stimulated in their growth because of their presence. It is when they are present in excess that they become injurious. They are more injurious in seasons which have fairly good spring rains followed by a shortage in the summer rainfall. The salts are thus brought into the root zone by the excessive evaporation which follows, and the plants then fall because of drought. Unwise or excessive irrigation brings the alkali to the surface, and to the extent in some instances of rendering land unfruitful which previously may have produced good crops. Alkali is most liable to accumulate where the land is depressed and where the drainage is not good. In humid areas the excess of these salts is washed out from time to time, so that in these their presence is not usually harmful. Both classes of alkali tend to destroy the soil texture. They destroy its granular condition, causing it to become impervious to water. They lead to a plasticity of condition when it is wet, and they cause it to become cloddy when dry.

Fortunately alkali soils do not usually cover large areas. More frequently they occur in spots and especially where water collects in low ground at certain seasons of the year. In some instances, however, considerable bodies of land occur that are more or less impregnated with alkali. Such soils are very undesirable for tillage.

Because of the difficulty found in tilling these soils their value is very low for agricultural uses at the present time, whatever the future may reveal. Because of this such lands should not be chosen for agricultural uses until more is known as to how they may be handled. They are usually exceedingly rich. The great obstacle to their tillage are, first, the difficulty found in handling them, and, second, the burning of the seed or crop that may be sown on them.

The removal of alkali when present in excess is seldom an easy proposition and in some instances it is not practicable. The first step in removing it is to supply thorough and complete drainage either through the agency of open or of tile drains. In some instances black alkali in solution will not enter the latter. In such instances it should be changed to white. This is done by adding considerable quantities of gypsum; that is, of sulphate of lime, which becomes carbonate of lime. When thus changed, the alkali may be washed down and out in the drainage water which is thus carried off in the drains. The second step is to work into the soil from 10 to 20 tons per acre of strawy horse manure in the summer or early fall, in areas where much of the precipitation comes in the winter, or in the spring when it comes subsequently to that time. It tends to prevent evaporation from coming to the surface, makes the soil more open and porous, and correspondingly reduces the tendency to puddling and baking. It also aids in supplying the young plants with plant food when the alkali soil alone would not do it. The third step is to grow such plants as will aid in removing the alkali and will at the same time give a profitable return. Sugar beets will absorb more of the salts probably than any other crop, but it may not be easy to secure a stand of the young plants. Among the small grains oats have the highest adaptation for such soils. Sweet clover may also be used in removing alkali from these soils.

**Production as an Index of Soils.**

If a soil is to produce well in dry areas it must be possessed of certain physical and chemical characteristics. The former include: (1) much depth of soil and subsoil; (2) much uniformity in the character of the soil grains in both soil and subsoil; (3) much power to absorb and hold moisture, and (4) that blending of sand and clay elements which favors easy tillage. The latter include: (1) the large inherent storage of the elements of plant food; (2) the elements of plant food held in proper balance, and (3) the absence in excess of such elements as may lead to what is termed an alkali condition of the soil. In the absence of physical examination much may be determined by the character of the vegetation found growing on the soil. Such vegetation includes: (1) the growth of sagebrush in one or the other of its forms; (2) greasewood and rabbit brush in varying degrees of vigor and plentifulness; (3) sparse vegetation, and (4) the presence of various grasses.

Sagebrush is essentially a product of semi-arid soils in dry areas. It is of several types which cannot be dwelt upon in a work of this nature. It would seem correct to say, however, that the character of the sage brush is a measure of the fertility of semi-arid soils. Where the brush is abundant and of large growth, the ability of the soil to produce well under proper conditions of tillage need not be questioned. This means that where sagebrush is plentiful and of vigorous growth, the ability of the soil to produce abundantly need not be questioned under correct methods of tillage. The soil constituents and the precipitation that will produce large and abundant sagebrush will also produce large crops of grain under proper conditions of tillage.

Plants popularly known as "greasewood" and "rabbit brush" grow on certain western soils. These indicate that alkali salts are present in that degree that will interfere with abundant production. Such soils may be tilled with a certain degree of success, but not with that degree of success that is to be looked for from the tillage of soils that are covered with an abundant growth of sagebrush of relatively large size in the shrubs.

In other areas, especially those that are very sandy in texture, the vegetation may be very sparse. The sagebrush that may be growing on these is dwarfish and the plants are relatively distant. Such growth does not necessarily indicate any absence of the essential elements of fertility in the soil, but rather the presence of moisture. In those areas the production of grass is sparse in its character, and good crops cannot usually be grown in the absence of irrigation.

The grasses which nature produces on the bench lands of the west are one of the surest indications of the possible production that may be looked for from the judicious tillage of the lands that produce those grasses. Where the native grasses form a sod that is reasonably dense on the untilled prairie, the presence of a sufficient rainfall for the production of good crops in a normal season need not be questioned. Where, however, the production of these grasses is sparse and limited, a light rainfall relatively is to looked for. The precise character of the grasses will vary with the soils and the amount of the precipitation, but it may be safely assumed that a free growth of grasses cannot be maintained in the absence of at least a reasonable amount of precipitation, regardless of the character of the soil. It may be taken for granted, therefore, that where the growth of native grasses is normally good, grains may be grown there with at least fair success under proper methods of tillage.

## INITIATIVE FREIGHT RATE BILL.

**THIS CONCERNS EVERY RESIDENT OF OREGON.**

The initiative freight rate bill, No. 358, vote yes, on the ballot is a non-partisan, people's measure. It is in the interest of the producer, the manufacturer, the consumer, and fair to the carrier.

The principle and method of rate making provided by the bill is endorsed by the interstate commerce commission, the foremost expert rate making tribunal of the world.

The enactment and enforcement of the bill will stimulate all industrial and commercial development in Oregon, reduce the price of transportation to the consumer, who ultimately pay all freight bills.

The bill will not cancel a single commodity rate which is less than the rates fixed by the bill. It does not take any authority from the railroad commissioner in the making of minimum rates, nor does it open a way for the railroads to advance special or commodity rates, or any class rates.

The need of passing and enforcing the provisions of this bill are seen in the following conditions and reasons:

ONLY 6 CENTS OF EVERY DOLLAR SPENT BY THE OREGON CONSUMER FOR MANUFACTURED COMMODITIES IS FOR OREGON MADE GOODS. 95 cents of every dollar so spent goes out of the state for goods manufactured in other states. Under this system which is caused by the present freight tariffs the wealth of the state is being needlessly depleted.

Under the stimulus of manufacturing Illinois increased in the 1910 decade over 800,000 inhabitants which is practically 200,000 more than the entire population of Oregon. Illinois towns under 10,000 inhabitants manufactured $4 to $1 manufactured for the whole state of Oregon.

50 cents will buy 500 miles of first class freight transportation under the Illinois rate schedule, and only 100 miles under the Oregon rate schedule. The Oregon dollar is worth only 20 cents as compared with the Illinois dollar.

The leading railroads of Illinois earn about $3,000 net per mile of road: Nebraska roads earn about $1,500 net per mile, while some of the Oregon roads earn $6,000 net per mile of road.

From 1906 to 1910 the O. R. & N. Co. paid $109 per share on stock of par value of $100, returning to the stockholder the full value of the stock and $9 to boot per share. In 1908 this road paid 79 per cent on its stock. In 1910 it paid 15 per cent on its common stock and 17 per cent on its preferred stock.

The Southern Pacific Company is capitalized at over 506 millions of dollars. Its only tangible property is 11.8 miles of railroad in California worth probably less than $250,000. Its earning right is on the 11.8 miles of road, or about $12,000 yearly. And yet this company is paying dividends yearly in excess of $17,000,000, and together with interest on its bonds, about $21,000,000 yearly. Every dollar so paid in excess of its earning rights on the 11.8 miles of road is filched from the people, therefore obbery.

The people are the power. It is for you to say whether you will longer tolerate these conditions. A vote yes for the initiative freight bill is a vote for better transportation charges and the upbuilding and blessing to the whole state of Oregon. The bill does not favor any one; it does not discriminate against any one.

This is a state measure and cannot affect interstate business.

If you want to build up your community, vote for this bill and secure a square deal in freight rates.

OREGON EQUITABLE RATE LEAGUE.
By E. A. WELCH,
Secretary.

X 358

(Paid Advertisement.)