

will hold the same amount of trees as one of seven acres planted the usual way or square form.

Thus one acre, planted 20 feet apart, in a square form, contains 108 trees.

One acre planted 20 feet apart, in a square form, contains 126 trees.

One acre, planted 25 feet apart, in a circular form, contains 69 trees.

One acre, planted 25 feet apart, in a circular form, contains 80 trees.

One acre, planted 30 feet apart, in a square form, contains 48 trees.

One acre, planted 30 feet apart, in a circular form, contains 56 trees.

One acre, planted 35 feet apart, in a square form, contains 35 trees.

One acre, planted 35 feet apart, in a circular form, contains 41 trees.

The rule is to plant 25 feet apart in a circle; multiply .866 by 25, and that will be the distance apart of the rows from base line; $.866 \times 25 = 21.65$, the distance in feet between the rows, trees 25 feet apart in the row, at right angle to the base line; but the first tree in the second row should be $12\frac{1}{2}$ feet from a point directly opposite the tree in the first row.

On observing the diagram, it will be noticed that in the third row the trees are directly opposite the trees in the first row, known as the base line, and the trees in the fourth row will be directly opposite to the trees in the second row.

When it has been determined what distance apart trees are to be planted in the row, multiply this distance in feet by .866, and the result will be the number of feet apart for each row, measuring from the first row as base line; and the first tree in the second row must be one-half the distance apart of the trees in the first row, from a point directly opposite the first tree in the first row. Every tree planted will then be an equal number of feet from the first trees on any of its four sides.

NUMBER OF TREES PER ACRE.

To find the number of plants required to set an acre, multiply together the two distances, in feet, at which the trees stand apart, and divide 43,560 by the product. The quotient will be the number of plants required for the square form of planting. Add one seventh of the quotients to itself and the sum will be the number of plants required for the circular form.

COST OF PLANTING AND CULTIVATING.

If the land is new it should be plowed at least eight or ten inches deep, then thoroughly pulverized with a harrow. Cost of preparation, per acre, is estimated

at.....	\$ 5.00
Cost of planting, per acre, if 100 trees are used at six cents.....	6.00
Cost of cultivating and hoeing, per acre.....	4.00

Total cost first year.....\$15.00

Further:—

Total cost first year.....	\$15.00
Second year, for plowing, cultivating and pruning.....	8.00
Third year for, plowing, cultivating and pruning.....	12.00
Fourth year, for plowing, cultivating and pruning.....	15.00
Fifth year, for plowing, cultivating and pruning.....	18.00

Total expenses for five years, per acre.....\$68.00

The additional expense, each succeeding year is for pruning and care of the trees. The cost of planting and caring for trees will vary according to conditions of ground, and the amount of

work required to keep it in good order.

The above estimates are from a letter by Raynor Kies, one of the most thorough and practical orchardists in the state of Washington.

THOS. E. VISSING.

Assistant Secretary, Utah's State Board of Horticulture.

Box, 1073. Salt Lake City, Utah.

THE INDIAN TROUBLE.

The Colorado Ute disturbance in San Juan county is beginning to assume a much more ominous and dangerous aspect than at any time since the invasion. The details of the trouble from its earliest inception were rehearsed behind closed doors in the executive mansion Tuesday. The fact as they exist were presented to the Governor in simple and impressive language and without the slightest apparent prejudice.

The task was performed by a delegation of San Juan citizens who arrived in this city on last night's Rio Grande Western passenger train from the East. They were sent by the white settlers of that part of the Territory where the troublous conditions exist to make an earnest, final appeal for protection from the Indians. The delegation consisted of Mons Peterson, Bishop of Moab; Jack Silvey, selectman of San Juan county; J. B. Decker, of Bluff; Lester Taylor, of Moab, and J. M. Cunningham, of La Sal.

Mr. Peterson acted as chief spokesman and said in substance that the Indians from Colorado had made up their minds to stay in Utah. They had emphatically stated during the last few days that they had no intention of returning to their reservation—that they would not do so even on an order from the government; that they were now in a choice land and proposed to occupy it. The whole number of the 900 Utes were now on this side of the line with their stock. They, however, do not obtain their meat from their own animals but prey upon those of the white settlers. They have already killed a great many cattle and sheep and are slaughtering them daily and are engaged in drying and curing immense quantities of meat for winter use. There are, say the members of the delegation, probably 20,000 head of cattle and 30,000 or 40,000 head of sheep, besides a large number of horses, in San Juan county. Just now many cattle have been killed it is impossible to state as they are scattered over a vast area of country.

These invading Utes are daily becoming more obnoxious, insulting and demonstrative. All are armed with rifles and revolvers and have plenty of ammunition. As an illustration as to how they now behave Mr. Peterson cited an incident which occurred only a few days ago. An Indian chief rode up to the house of Bishop Jones of Monticello accompanied by a band of braves. The Bishop has always been on good terms with them and offered them flour, baking powder and bacon, telling them they could go into the yard, kindle a fire and cook their supper, at the same time informing them that they could sleep under the shelter of the hay and straw stacks near the stable and corrals. The chief drew himself

up to his full height, looked indignant and said, pointing to the kitchen stove, "White man's squaw must cook for us." Then turning about he directed attention to a bed (the Bishop's) in another room and added, "Me sleep in that. This county is ours; you no like it, you move out."

In addition to the Utes there are about 200 Navajoes who have also left their reservation in Colorado and come into Utah. They are in the Blue and Elk mountains. The citizens have sent out delegations to move them back but up to date have not met with much success. They have brought from 8,000 to 10,000 sheep and about 200 head of horses with them. Together with the Utes they have taken possession of the choicest grazing ground in the county. The white settlers are losing a good many stock from the effects of the drouth. As regards the Navajoes an unknown agent of that tribe a few days ago promised the citizens of Bluff that he would have them driven back inside of two weeks—by troops, if necessary. The residents of Bluff look for this to be done.

Mr. Decker, of Bluff, stated to the Governor that he went personally to Agent Day and represented to him that the Indians were killing their cattle and sheep and that Mr. Day replied with an air of indifference, "I really don't see what I can do about it. It looks to me as though you had better go to killing the Indians."

That expression, says Mr. Decker, gives the whole situation in a nutshell. It is precisely what the Indians want, and it seems to be just what Day is desirous of bringing about. But, says Decker further, that would be suicidal and would result in the whole settlement of Bluff being depopulated. The Indians say that Day advised them to come to Utah and that they propose to do his bidding in remaining here.

The cattlemen of San Juan held a meeting at Hatch's ranch on Saturday night and resolved to open hostilities on the 15th instant providing the Indians had not commenced to move back before that time. Information to this effect has been circulated among the whites who, for the welfare of themselves and families will probably gather at some central point of safety where unitedly they may resist an attack by the Indians.

In response to the representation and appeals from the delegation Governor West stated that he was pleased to receive the additional information they had brought, and assured them that he would do all in his power to bring about a speedy settlement of the difficulty. He detailed how he had telegraphed to the authorities at Washington every day without a single exception since he was notified of the trouble and insisting that something be done and that without delay. He stated that he had given the secretary of the interior all the information he had received himself. The secretary had turned the matter over to the war department and the war department had referred it to General McCook. As to help from the militia it was not a question in which the national guard could be used, at least at the present state of affairs. The Indians were wards of the government