

## LEVELING THE LAND

### Amount of Grading and Smoothing for Irrigation Varies.

It is Great Mistake Not to Prepare Ground Properly in First Instance so Crops Can Be Readily Irrigated.

(By ELIAS NELSON, Irrigationist, University of Idaho Agricultural Experiment Station.)

The amount of grading and smoothing over that land may need for the application of irrigation water varies with the lay of the land. Some fields have such a uniformly even surface and slope that very little work besides a smoothing over is required. Often, however, knolls occur that must be scraped off and depressions that must be filled; where the land is very rough much grading will be required. There are few fields which will not require some moving of dirt with scrapers.

In some parts of Idaho leveling is overdone, while in other places there has not been enough. The surface soil, as we know, has accumulated humus and is well aerated and thus suited to the growth of plants. With the subsoil it is different. Whenever, therefore, the surface soil is scraped off it requires a year or two or more to bring such ground into a productive state. On this account no more leveling should be done than is necessary for proper irrigation. Where the soil is deep heavy grading may be done, but where it is shallow grading should be limited.

The purpose of leveling and grading is to so fashion the land that water may be evenly distributed over it. Often, however, some extra leveling is advisable to do away with ditches that would otherwise be required and that would cut up the land in irregular shapes.

It is a great mistake not to level the land well in the first instance so that crops can be readily irrigated, for if it is done properly at the outset it is done for all time. On the other hand, it is also a mistake to grade excessively when there is no real necessity. The best time to level is in summer or in fall, as the soil is dryer then and hence not so heavy to move and there is no trouble about puddling the soil. In spring, when the soil is moist or wet, leveling cannot be done so advantageously.

The location of the ditches is determined by the lay of the land and the system of applying water to be installed. In general we may say that it is desirable to run the ditches at right angles to the line fences whenever the lay of the land will permit it. Such ditches of course will not have a uniform grade. Where ditches are located in that way the fields are rectangular and hence all farm operations can be easily performed. Often it may be well even to make fills so as to make ditches straight rather than following curved lines.

On many farms the lay of the land is such that the ditches cannot be run at right angles to the line fences but must conform in a measure to the contours, making irregular shaped fields unavoidable. Under such conditions make the ditches on a grade of from .05 to .15 part of foot per 100 feet.

As a general thing we should figure to irrigate with the general shape of the land, as by so doing water can be more evenly and expeditiously distributed over the land. As regards the location of the ditches and the details of the system of applying water each farm is a problem in itself. Where the whole farm has one general slope it is a simple matter to determine where the ditches should go. Often, however, there are various slopes and the system of ditches must be constructed to suit.

### Horse Thin in Flesh.

Well, friend, timothy hay and corn are not by any means a balanced ration for a horse, and unless you feed a lot of corn and she digested it well you would not likely see much flesh coming on her ribs, says a writer in Tribune Farmer. I suggest that you get that corn ground into meal; then with every 100 pounds of the meal mix 100 pounds of wheat bran and 25 pounds of linseed meal, and feed her a pound of the mixture to every hundred pound weight of horse daily in three feeds, and as a seasoning place in each feed a tablespoonful of the following: Granulated sugar, two pounds; common salt, one pound; ginger, six ounces; powdered gelatin, four ounces; powdered sulphate of iron, four ounces; powdered charcoal, three ounces; powdered aniseed, three ounces. Mix all well together. Use freely of elbow grease propelling a good brush, 20 minutes daily, on her skin.

### Making Butter

The making of good butter begins with the cow. The most profitable way for the farmer to dispose of his butter is to the creamery. To get the best results from the milk set it as soon as possible after it is drawn, and at a temperature of 40 degrees. Churn at as low a temperature as possible, and stop the churn when the granules are the size of beans. Your trade demands color in the butter, so put it in.

### Doing Odd Jobs.

As the season advances it becomes more evident that the farmer does not need to lay up any odd jobs for a rainy day. If there is an odd job that needs to be done, do it now.

## UTILITY OF FALL IRRIGATION

### All Fertile Reservoir Water Should Turned On to Land in the Autumn.

Many are so situated that they cannot do any winter irrigation because the water is turned off from the canal after the growing season and not turned on again until irrigation is to begin in the spring.

Nature's way of breaking up and disintegrating the solids in the soil is by freezing and thawing and dry soil does not freeze very much. Every farmer knows how loose and easily worked is the soil after the ground thaws out in the spring and how often they wish they could keep it that way all summer. But is everybody doing all possible to promote this condition? Winter irrigation will help very materially. The effect of late fall irrigation on alfalfa is very noticeable. Ground irrigated in the winter often produces one-half to three-fourths of a ton more hay at the first cutting and during the past summer the first cutting of alfalfa from winter irrigated land ran as high as 3 1/2 tons the acre. The effect on all other ground is quite noticeable in dry springs.

With the usual long, dry winter and spring up to the first of May, with but little moisture one would suppose that there would be no difference between the ground irrigated and that not irrigated, but the crops on irrigated ground come up much quicker and make at least one-half more growth during the summer. One reason perhaps is because they get the start of the weeds and keep them choked down. Many springs there is an abundance of moisture and every old farmer man knows that the best grass follows a soggy winter. Some farmers have no water with which to irrigate in winter but those who have should use it by all means. All the surplus reservoir water should be turned on to the land in the fall and run the risk of entirely refilling during the winter.

Saving the moisture by tillage is almost as important in the growing of a banner crop under irrigation as it is for the dry farmer. The condition of the soil during the growing season in regard to the amount of water, its freedom from clods, its mechanical condition on most of our soils have as much to do in making the crop as the fertility of the soil. Of course we must have both to grow big crops year after year. The soil must be loosened to good depth to allow the water from heavy rains to settle quickly and not stand on the top to form a crust; to take in more water when irrigated and so make less in number the irrigations with less chance for the ground to bake.

### LIVE STOCK NOTES.

The best ration is the one that works with your stock and gives you the best return.

By feeding better animals it is many times possible to double an income without adding to the cost of production.

Cold, wet rains and young lambs do not go well together. Keep them separate, with a good roof and a wind-break.

When one sees horses driven to death on hot days he feels like welcoming the time when autos will be used altogether.

Hogs will eat considerable clover-hay in the winter if given to them, and it not only saves grain, but it is a health-promoter.

There are few horsemen who have not from direct experience learned that sudden changes in a horse's diet result disastrously.

There are men who say the little horse can do as much work as the big one, but they are always ready to pay more for a big one.

The breeding-hogs should have pasture in order that they may have exercise with a plentiful supply of fresh air to secure robust health.

The best method of keeping the breeding swine is good health, plenty of pasture and winter roughness, to go along with the grain ration.

Aside from the wool, if the sheep is not making a good growth, raising a lamb or coming into market condition, it is not enriching its owner.

If the weather is not too cold, there is nothing better for the brood sow than to give her the run of a good-sized pasture lot for at least two weeks before time to farrow.

If the ewes are of the coarse wool type, a ram should be selected from one of the coarse wool breeds, and if the ewes are of the fine wool type a ram should be selected which will not be a violent cross.

Whatever else is allowed to ston on the farm the calf, colt and lamb should not be allowed to ston growing. It is a mistake, a very costly one, in management when this thing occurs. Few can afford it.

Most intelligent farmers nowadays use the best registered sire they can find to breed their mares to; very many of them are also quite particular about the selection of the boar, but when it comes to cattle anything that will get a calf seems to be the rule.

### The Poultry Farm.

Haphazard methods or neglect will make a quick failure of a poultry farm, while patient care will bring sure results, says a writer in an exchange. We can only repeat what a friend said to us when we were talking of starting a poultry farm: "Start with a few hens, and see if you like the business, for there is lots of work in running a poultry plant." We knew he was right, for we have worked, but have no regrets—only that we did not start years ago.

# The KITCHEN CABINET



**W**EGETABLES should be given in abundance, since the vegetable potato carries with it a large amount of potassium salts, which neutralize the acid products and forestall rheumatism.

—Dr. Still.

**The Problem of Left-Over Vegetables.** Many housewives have numerous ways of serving left-over meats, but the vegetable is either thrown away or appears just as it was served the day before.

Corn may be prepared as an escalloped dish or put into a potato or other vegetable salad to the advantage of the latter. A cupful will make sufficient corn oysters for four people. Add a teaspoonful of milk, a beaten egg and flour with baking powder well sifted to make them hold together, then fry in hot fat.

A small quantity of tomatoes may be added to a soup, a meat sauce or an escalloped dish of corn.

Cold string beans make an excellent salad: Add a teaspoonful of chopped onion to a cupful of string beans with salt and pepper to taste. Cut a slice of bacon into dice and fry; pour the fat over the beans, then add a quarter of a cupful of hot vinegar, and serve.

Cheese added to creamed string beans changes the dish to one quite new.

A few peas may be added to the broth of a mutton stew and served with it, making a dish most palatable.

Scalloped onions are especially nice prepared with cold boiled onions; flavor with cheese.

A green pea omelet is a most delicious luncheon dish. Drain a cupful of cold cooked peas, mash and season. When the omelet is ready to serve spread the peas over one-half and fold. Serve on a hot platter.

Turnips and squash may be seasoned and baked. Cabbage is good treated as the string beans were, with hot bacon fat and vinegar.

Celery is very nice cooked and served in a white sauce.

Tomato toast is a nice way to serve a little left-over tomato: Take a cupful of boiling hot tomatoes, season with butter, salt and pepper. Stir in three well-beaten eggs and a half cupful of hot cream. Serve on buttered toast.

Several vegetables together often makes a very acceptable dish; such as potatoes, a sprinkling of onions, a cupful of tomatoes and a few peas, with a little chopped roast beef. The dish is ready after a half-hour's baking, fit to set before the king.



**W**HEN thou dost tell another's jest, therein omit the oats, which true wit cannot need; Pick out of tales the mirth, but not the sin; He pares his apple that will cleanly feed.

—George Herbert.

**Apples.** Since Eve ate apples they have been a much prized fruit, and apple pie, apple pudding, apple dumplings, apples baked, fried, apple sauce, apple jelly and apple butter are good old standbys.

**Apple Trifle.** Select tart apples, peel, cut them in half, removing the core; lay a slice of lemon in the center of each, pour a cupful of water over them, and steam until tender and clear. Take them out and set aside until perfectly cold. Lay a dozen split lady fingers or small sponge cakes in a glass dish, and moisten them with a little orange juice. Lay the apples on this, sprinkle thickly with powdered sugar, and heap over all a cupful of whipped, sweetened cream. Serve very cold.

**Apple and Rice Pudding.** Peel small tart apples, core and put into a baking dish. Have ready a cupful of boiled rice, mix with two cupfuls of hot milk, into which has been beaten the yolks of three eggs and a half cupful of sugar.

Stir into the rice a half cupful of blanched almonds cut into strips, a half cup of seeded raisins and a couple of dozen strips of citron. Pour this mixture over the apples, after having put a teaspoonful of sugar into each apple. Bake well, covered until tender, uncover and heap on them a meringue made of the whites of three eggs beaten stiff and two tablespoonfuls of powdered sugar added, brown in the oven and serve either hot or cold.

**Parisian Apples.** A dainty and attractive way of serving apples is to pare them and cut with a small potato cutter into balls. Put them at once over the fire and cook in water, sugar and a little lemon juice. When the balls are tender, before they lose their shape heap them on rounds of buttered toast which have been spread with apple jelly. Sprinkle with chopped almonds and heap over them the whites of two eggs beaten stiff and sweetened with two tablespoonfuls of powdered sugar and flavored with a teaspoonful of lemon juice.



**S**O LONG as we love to serve; so long as we are loved by others I would almost say that we are indispensable; and no man is useful while he has a friend.

—Robert L. Stevenson.

**Some Hot Weather Dishes.** In these sultry days of summer the appetite needs new interest to awaken appreciation and new dishes are most welcome.

Let nuts take the place of meats, as they will be found both satisfying and economical. Chilled fruits are the most wholesome of all desserts; but for those who care for more elaborate dishes, here are a few which will reward your efforts:

**Peaches En Surprise.** Soften two tablespoonfuls of gelatin in half a cupful of cold water and dissolve in a cupful of hot cream. Add two-thirds of a cupful of powdered sugar and strain into a dish set in a pan of crushed ice; stir until it begins to congeal. Add a teaspoonful of orange extract, a few drops of saffron to give it a dainty yellow; pour into a pint of whipped cream and lightly fold the mixtures together. Line a large mould with strips of angel cake. Put a little of the cream mixture in the bottom of the mould and on each strip of cake to hold it in place. Have at hand some diced-ripe peaches generously sprinkled with sugar and lemon juice, fill the mould nearly full, then pour in the cream. Bury in ice and salt for three hours.

The following will be a dessert that is at least uncommon:

**Creole orange cream with almonds** in a double boiler, put two cupfuls of water, the juice of four oranges, the rind of two, and two cupfuls of sugar and the beaten yolks of ten eggs. Stir until the mixture thickens. Put into a freezer and stir until half frozen, then add the beaten whites of five eggs and one cupful of blanched shredded and browned almonds. Finish freezing, then stand packed for two hours.

**Creme de Menthe Sandwiches.** These are a fine accompaniment for cold lamb. Steep two tablespoonfuls of mint leaves in a little cold water, strain and add to a pint of whipped cream, season with salt and pepper and add half an ounce of gelatine softened in a tablespoonful of cold water. Cool in a square mold and when firm cut in thin slices and place between buttered slices of rye bread.



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**Southern Ways of Serving Vegetables.** The famous southern cooks, though not at all scientific in their cookery, knew how to prepare appetizing and attractive dishes. The following are some which have pleased the palate of a northerner:

**Summer Squash Pudding.** Boil young tender squash, drain and mash free from lumps. To a quart of the squash, add a cupful of rich milk, a tablespoonful of butter, three beaten eggs and salt and pepper to taste. Butter a deep dish, turn in the mixture and bake a rich brown.

Another way of preparing this delectable vegetable that the southern cooks have is:

**Fried Summer Squash.** Steam full grown squash until tender. Cool and slice carefully. Season with salt and pepper, pour over the slices a little beaten egg, sprinkle with crumbs and fry a light brown. Take up and prepare the other side in the same way, return to the pan and brown. Serve very hot.

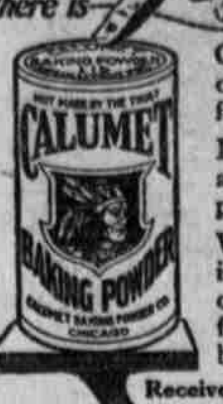
**Virginia Corn Pudding.** Cut the corn from six large ears of corn. Add to this three well beaten eggs, half a cupful of melted butter, a tablespoonful of rice flour, two tablespoonfuls of sugar, one of salt and a pint of new milk. Mix well, then cut and fold in the well-beaten whites of the eggs. Put into a baking dish and bake in a moderate oven until brown.

**A Creole Dish.** Peel a half dozen ripe tomatoes, by pouring boiling water over them. Put two tablespoonfuls of butter in a frying pan over the fire; when very hot add the tomatoes and fry until brown on one side, sprinkle with salt and pepper and turn, cover with chopped and seasoned cold fowl or veal.

**Deviled Tomatoes.** Peel large, firm tomatoes and cut them in halves, rub a broiler with butter, lay on the tomatoes, dredge with salt and butter; when cooked pour over the following sauce: Mix a tablespoonful each of made mustard and butter, a teaspoonful of pepper sauce, the juice of a small lemon, a teaspoonful of currant jelly and a little salt.

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