

Garden Notes.

Whether on the farm or in the garden we wish all our readers a bright and prosperous New Year.

That our prosperity in either sphere depends very largely upon an intelligent understanding of the nature of the soil in farm or garden goes without saying. The following notes are largely extracts from "Elements of Agriculture," by Dr. Fream:—

COMPOSITION AND CLASSIFICATION OF SOILS.

Solid substances found in soils consist of mineral or organic matter. The mineral matter is derived from the decay of rocks. The organic matter, humus, arises from the decay of animal and vegetable substances. The most abundant mineral ingredients of soils are sand and clay, to a less extent also limestone. Although in some parts of our own district limestone predominates.

A soil consisting entirely of sand would be useless to the cultivator, he could grow nothing upon it, no hold for plant roots besides which all rain would filter through and leave it dry. Sand is equally deficient in chemical properties. It is composed of oxygen gas united with an element called silicon, which is never found pure in a state of nature, and can only be isolated with difficulty by the chemist. In most cases sand has nothing to offer as plant food. A micaceous sand, however, contains fragments of the glittering mineral mica, which when decomposed is capable of yielding potash, lime, iron, etc., some of which may be used as plant food. Although sand by itself has no physical or chemical qualities which can commend it to the cultivator, yet as a constituent of soils it confers upon them two important properties, it tends to make them light and open, and therefore permeable to moisture, air and warmth. Clay is made up of exceedingly minute particles which readily adhere to each other. The chemical composition of clay is less simple than that of sand. The latter is made up wholly of silica. Alumina also is an oxide, being composed of oxygen combined with a silvery looking metal, aluminium, known to everyone.

From a chemical point of view pure clay would be as useless as pure sand as a source of plant food, but clays are always more or less impure, and the impurities present usually contain elements, such as potassium, magnesium, calcium and iron, which play an important part in the nutrition of plants.

As a constituent of soil, clay possesses many valuable qualities, condenses the oxygen of the air, retains water, thereby keeping the soil moist, gives tenacity, absorbs and retains the useful products resulting from the decomposition of manures, such as ammonia, potash, lime and phosphoric acid, and is rich in useful substances adapted to supply plants with food.

Limestone.—As a constituent of soils, limestone, if sufficiently pulverised, has very useful agricultural properties. On account of its re-action with acids it aids the decomposition of organic manures, such as farmyard manures, and promotes the formation of nitrates in the soil. Most limestones are more or less impure, owing to the presence of phosphates or sulphates of lime, magnesia, etc., the elements of which are very valuable as ingredients of plant food. Carbonate of lime renders clay soils more friable.

Humus consists chiefly of decaying vegetable matter in the soil, sometimes mixed with a greater or less proportion of animal substance. Well rotted leaf mould, so largely used by gardeners, is very rich in humus. The compounds produced by the decay of organic matter in the soil contain a larger proportion of nitrogen to carbon than exists in living vegetation. The carbon of the humus being diminished by much of it going off in union with oxygen as carbonic acid gas. It was formerly thought that humus was capable of serving directly as plant food but this has been proved not to be the case. Nevertheless humus is of great value, because the final products of its decomposition—chiefly carbonic acid, ammonia and water—are capable of serving as plant foods. The quantity of humus usually present in cultivated soils ranges from 2 to 9 per cent., and within these limits, the soil will be the richer, or the more fertile, the more humus it contains. It is possible however, for a soil to contain too much decaying organic matter, this is the case in swamps, peaty soil and boggy moorlands.

Garden soils commonly contain more humus than ordinary agricultural soils. Sandy soils need to be enriched with humus not only on account of its containing fertilising ingredients, but equally for its moisture holding capacity. Of the various constituents of soil, none are equal to humus in the power of absorbing and retaining moisture; hence, a soil rich in humus is better able to withstand drought. In contrast with the free, open, sandy soils are the firm, dense, water holding clay soils; in these humus has a physical value on account of its property of loosening, and thereby opening and aerating the soil, consequently the very growth of crops may improve the soil for future crops, because the crop residue, in the form of roots and stubble goes to increase the store of humus which the soil contains. Hence it is desirable in some cases to increase and in others to judiciously regulate the quantity of humus contained in the soil.

By the process of green manuring—that is, raising a crop of mustard, rape, or any other quick growing plant, and ploughing it in green—the amount of organic matter in the soil can be speedily increased.

SIMPLE CLASSIFICATION.

Soils consisting almost exclusively of one constituent are rare and exceptional. Nearly all soils of the farm and garden will be found to contain sand, clay, more or less limestone and some amount of humus. Inasmuch however as clay and sand are in point of quantity by far the leading ingredients of most soils, it is convenient to classify according to the percentages of clay and sand they contain. Suppose then, that a soil consists almost entirely of sand and clay. If in such a case the quantity of clay does not exceed 10 per cent of the weight a sandy soil is the result, with from 10 to 40 per cent clay, a sandy loam; with from 40 to 70 per cent clay it is a loamy soil; with from 70 to 85 per cent clay it becomes a clay loam, and with from 85 to 95 per cent clay, a strong clay.

A loam, it will be noticed is a soil consisting of a mixture of sand and clay in which neither is greatly in excess of the other, a gravel loam and a chalk loam are loams of which gravel and chalk respectively are noteworthy ingredients.

A marl is a clayey soil containing from 5 to 20 per cent of carbonate of lime; should the limestone present exceed 20 per cent of the total weight a calcareous soil is the result. For nearly all purposes loams make the most suitable soils. If a soil happens to be excessively sandy or clayey or calcareous or peaty it will be proved in character in proportion as it is brought to resemble a good medium loam. The object of the cultivator is, as far as possible to bring it into such a condition.

Experience proves that a soil is best adapted for purposes of cultivation when it contains of:—

Sand, Siliceous and Calcareous from 50 to 70 per cent.; Clay Siliceous and Calcareous from 20 to 30 per cent.; Pulverised limestone and Calcareous from 5 to 10 per cent.

It thus contains enough sand to make it warm and pervious to air and moisture, enough clay to render it moist, tenacious and conservative of manures; enough limestone to furnish calcareous material and to decompose organic matter and lastly sufficient humus to assist in supplying the food requirements of plants and to aid in maintaining the carbonic acid in the interstitial air of the soil.

The reason that alluvial soils are generally so fertile is the mixed mineral character they possess, owing to their having been usually derived from the disintegration of various kinds of rocks and not of one kind only. Such a soil as that indicated in the above table is, however, the exception rather than the rule in nature, most soils being characterised by too great an excess of one or more of the ingredients.

Old Ebony

The Holidays.

Warkworth is the deserted village just now. In addition to the number who have gone to town, many parties have removed to canvas dwellings in the pleasant retreats around the coastline.

The largest gathering on Boxing Day was at Martins Bay, where the Mullet Point folk held a picnic in connection with the Band of Hope. A considerable number of visitors were present, and everything was done to make it a whole hearted day of enjoyment. At Snell's beach the number of picnickers was less than usual. Kawau Island was the chosen attraction for a multitude of city dwellers. One boat was advertised to leave Auckland for the Island, but it took three steamers to carry all who wished to go. In addition to the sojourners at the Mansion House, and the summer residences, quite a flotilla of yachts and motor launches made the harbours of the Island their headquarters.

On Friday morn, it looked as though the drought might end, and in the districts round about the Whangaripo Valley, a wetting shower fell, which very considerably affected the attendance at the bazaar and sports held in connection with the piano fund of the Whangaripo hall.

On New Year's Day the annual sports at the Whangateau domain are bound to be the centre of attraction for the eastern dwellers of the County, while the bazaar and anniversary concert at Port Albert will be the gathering for the folk of the west.

The cold damp weather brings that irritating cough which disturbs you night and day. You can get prompt relief if you will use "NAZOL." It acts like a charm.

When your little child is hot, restless, and feverish with a fresh cold don't wait, but give immediately "NAZOL" on Sugar, and sprinkle freely a hankiechief with "NAZOL," and pin on the dress so that the child can inhale it close-antly. Mothers have found it most successful.

Ask to see the new low bust, long skirted Models in Warner's Rust-proof Corsets. Every pair guaranteed. Local Drapers.

A straight tip! If you feel a thickening of the throat with hoarseness coming on, taken a few drops of "NAZOL" on loaf sugar every hour. Allow the sugar to dissolve very slowly in the mouth by placing it between the cheek and gums. 'Tis a tip worth knowing.

Warner's Corsets are so perfect in pattern and workmanship that they will fit perfectly, and not become useless until the whole garment is completely worn out. Every pair guaranteed by local drapers not to rust, break or tear. Prices from 6s to 17s 6d per pair.

Dome Valley.

(Own Correspondent.)

On Tuesday last, Mrs Walsh, who is leaving Dome Valley to take charge of Woodhill School was presented by the girl pupils with a nice butter dish. Mrs Walsh very feelingly thanked them for their kindness.

ANNUAL TEA.

The Church of Christ who meet at Dome Valley held their annual tea meeting on Wednesday last December 18th. The weather was all that could be desired and the attendance was good. Visitors were present from Auckland, Port Albert, and Woodcocks. The tables were presided over by the Misses H. Petherick, and L. Civil.

After ample justice had been done to the good things provided by the ladies, the tables were cleared and preparations made for the evening meeting. This was presided over by Mr J. A. Shepherd from Port Albert. Disappointment was experienced that some who were expected to help were unable to come, nevertheless an enjoyable evening was spent. The following was the programme:—

Hymn, "All hail the power of Jesus' name"; Prayer; Chorus, "Did you think to Pray"; Address, Chairman; Solo, Miss Cammell; Gramophone selections, Mr Ray Grimmer; Solo, "Charity" Miss H. Petherick; Recitation, "The evolved child"; Mr H. Milner; Address, Mr R. Laing; Solo, "Send the tidings of Salvation"; Mr T. Oakes; Solo, "Only Jesus"; Mr H. Milner; Address, Mr T. O. Jenkins; Gramophone selections, Mr Ray Grimmer; Quartette, "The City that lieth four square"; Misses H. Cammell, H. Petherick, Mrs Petherick, and Mr Milner; Address, Mr Milner; Solo, "The Better Land" Miss H. Cammell. A vote of thanks to all who had helped to make the gathering a success was proposed and carried by acclamation. The meeting was brought to a close by singing "O, God our help in ages past" and the Benediction.

CHRISTMAS TREE.

Last year the Christmas Tree took the form of a picnic held in the day time, this year by way of a change the picnic took the form of a Christmas Tree held in the evening. The school was decorated with nikau, flowers, and chinese lanterns. The first part of the evening was occupied with singing by the young folks. Mr Hudson occupied the chair. The following programme was gone through with credit to both the children and their teacher. Chorus, "March of the men of Harlech" Children; Recitation "Curfew shall not ring tonight"; Miss I. O'Callahan; Chorus "Love at Home" Children; Dialogue, "Tabby and Growler" Masters R. Ross; and S. Phillips; Solo, "Sleep Dolly"; Recitation, "An Amazing Mistake" Miss Honour Petherick; Chorus, "Hast Thou a Father" children; Recitation, "Hang up the Baby's Stocking" Miss Edna Phillips; Solo, "As your hair grows whiter," Master Bertie Walsh; Concerted Recitation, "The Kitten's Tea Party," by five little girls; Solo, "I do love you Daddy," Miss Evelyn Walsh; Recitation, "Not Understood," Miss J. Petherick; Duet, "The Drummer Boy" Masters H. Walsh, and L. Taylor; Chorus, "Indian Warriors Grave" Children; Recitation, "Barbara Fitchie," Master Percy Phillips; Solo and Chorus, "Little Sisters gone to sleep" Children; Recitation, "The Bee," Master Gilbert Phillips; Recitation, "The Hungry Tom Cat" Miss Newcombe. The National Anthem was then sung and cheers given to Mrs Walsh for the able manner in which she had trained the children in their various parts. Santa Claus then appeared on the scene and the Christmas Tree was stripped of its fruit, each child receiving a prize and a bag of lollies. Tea, coffee, and the more solid refreshments were then handed round and seemingly enjoyed. Mr Petherick on behalf of the parents wished Mrs Walsh health, happiness, and success in her new field of labour. This was seconded by Mr G. Phillips and carried with cheers. Adieus were then exchanged and a most pleasant gathering brought to a close.

Mr H. Milner gave his farewell address at Dome Valley this Sunday evening. There was a full house. His subject was "The Birth of Christ and its Lessons" and was both interesting and instructive. Mr Milner's visit has come to a close. He is a good speaker and has endeared himself to the folk in the short time he has been here by his pleasant and genial manner and we wish him God speed whenever he may go.

At church or the theatre, in the tram car or railway carriage, you are sure to find someone using "NAZOL" for sore throat, cold in the head, or bronchial trouble. How is it? Why? Because "NAZOL" is good and reliable.

When thousands use "NAZOL" it is an absolute proof that "NAZOL" has real merit. It is in daily use in over 50,000 homes for cold in the head, influenza sore throat, coughs, bronchitis, asthma &c.

Public attention is directed to the beautiful photo of the celebrated Maggie Papakura on the cover of the Roslyn Writing Pads, only 6d. each including 100 sheets fine bank paper. From Drapers and Storekeepers.

Chapped Hands are easily cured if you use NAZOL OINTMENT. It possesses healing and soothing properties.

Tackle that fresh cold in the head by inhaling freely "NAZOL." Also take a few drops on loaf sugar, and allow the sugar to dissolve very slowly by placing it between the cheek and gums.

Tightness of the Chest, difficulty in breathing, accumulation of phlegm—all the result of a cold or chill—may be relieved by "NAZOL." It is a household remedy—in thousands of homes.

Cot wet through! Wore damp boots! Cold settling on my chest, feel miserable! This is the experience of many. There is nothing that gives more speedy relief than full doses of "NAZOL." It is quite magical in its effect.

Children cannot help getting cuts and sores. Sometimes they are slow and difficult to heal. Remember that NAZOL OINTMENT is a great healer because it possesses Soothing, Antiseptic and Germicidal properties. No home should be without it.

Chilblains, Chapped Hands, and Rough Skins are very tormenting and irritating. If you want relief, then use NAZOL OINTMENT. It softens the skin, takes away the irritation, soothes, heals and cures.

If you want to get rid of Chilblains bathe them in hot soapy water and when dry, rub in NAZOL OINTMENT. Those who have tried it have got quick relief.

MUMPS: Bathe the glands of the neck with hot water and soap and after drying rub in freely NAZOL OINTMENT and wrap the neck in flannel. This will give speedy relief.

Mumps is an infectious complaint. Most mothers know this. NAZOL OINTMENT is Antiseptic and Germicidal. It reduces the swelling and gives prompt relief.

Rugby Players get plenty of hard knocks, and plenty of bruises. NAZOL OINTMENT enables them to get rid of the bruises quickly. It has great soothing and healing properties.

Most singers know the value of "NAZOL" for throat troubles. It is a friend indeed and enables them to keep their engagements. They generally carry a bottle of "NAZOL" and a few pieces of loaf sugar in their vest pockets.

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On his sire's side, Escamillo, is a direct descendant of the famous Muskét and his dam, Carmen, comes of a family celebrated for their stamina and constitution.

Terms, £3 3s; two or more mares the property of same owner as per agreement. All mares guaranteed. Grazing free till notice of stinting is given, after which 2s. a week will be charged. All mares to be paid for before removal. Every care taken but no responsibility.

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Leaves Warkworth, Mondays, Wednesdays, Thursdays, and Saturdays, at 8.20 a.m., and Arriving Kaipara Flats at 10 a.m. Leaves Kaipara Flats on Mondays, Wednesdays, Thursdays and Saturdays after arrival of Auckland Train at 4 p.m.

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Farm Machinery, Waggon, etc., that are severely exposed to dirt, water, and weather should be painted frequently. A painted surface is more easily cleaned, and kept clean, than one that is unpainted, and rust and decay are largely prevented. The use of Sherwin-Williams Wagon and Implement Paint is therefore a wise economy, as it will increase the life of articles on which it is used. Sold in Pints, Quarts, Half-gallons, and Gallons. EVERY PACKAGE IS FULL MEASURE.

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Toys of all descriptions too numerous to describe.

Electro Ware, Cruets, Sugars and Creams, Jams, Jam and Butter Dishes, Sugars, Teapots, half-dozen Spoons and Sugar Tongs in case and Biscuit Barrels.

Set Carvers in case up to £2 2s, "Rawsons. Ink Stands, Writing Decks, Work Boxes, Music Cases, Fancy Fans up to 4s 6d, Purses of all kinds 1s to 12s 6d, Accordions, Gramophone Records, Mouth Organs from 6d to 2s 6d, Gents' Wallets 2s to 7s 6d each, Sidar Lever Watches 20s each, Gold and Silver Chains, Gold and Silver Brooches, Glassware of all descriptions.

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Suits Cleaned and Pressed. All kinds of repairs executed.

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