25 lb. from [to room]
No 2 news 5P00

WHAT! WHEN! WHERE! WHY!

4 IN 1—D. M. S. & B.

LIFE EXTENSION BULLETIN

Without Lime There Can Be No Life, Either Animal, Plant or Human

VOL. I NOVEMBER, 1921 No. 1

DAVID STARR JORDAN

Stanford Uuiversity P. O.
California

October 10, 1921.

Mr. S. Maus Purple,
301 Bradbury Building,
Los Angeles, Cal.
Dear Mr. Purple:

I have looked over the collection which you kindly sent. The large bones belong, apparently, to whales and have no scientific interest because they are so imperfect. The shells are well preserved and very interesting. My boy, Eric Jordan, who is something of an expert on them, will give the names when I return them.

The University will be very glad, however, to have this collection back or a similar one, in order that they could be studied in detail, for some of them are undoubtedly new, and the whole would throw an interesting light on the life of the period to which they belong, which I suppose is Miocene.

The two large shark's teeth are especially valuable because they are different from any we have ever received and the species, one of the great white sharks, seems to be new to science. The fish must have been nearly 100 feet long for the living species, which reaches 35 feet, has teeth one inch long. This differs in the smoother edges of the teeth and in some degree in the form.

It would be a very great favor if you could return these large shark teeth to us, and I would describe them and turn them over to the United States National Museum, where they ought to belong, after you get through with your exhibit.

Very truly yours,
(Signed)
DAVID STARR JORDAN.

SUPER-LIME

Judicial minds of today, by strengthening each unit of production are preparing for the normal price adjustments of tomorrow.

It is imperative that "you" adjust yourself for the unknown quantity of the future and use D. M. S. & B. Lime wherever you can get it in.

THE DEAN IRIS GARDENS

GROWERS AND IMPORTERS
CHOICE IRIS

The largest collection of Iris in the West—One of the largest it the United States

Moneta, California.
September 16, 1921.

Mr. Lee B. Hawkins,
Moneta, California.
Dear Sir:

After using the product of the Torrance Lime & Fertilizer Company for a year, we are pleased to recommend it, as we believe it to be the best fertilizer we can use for aerating our heavy mesa soil. As lime in the soil is essential for the best results in growing many of the Iris species, it also meets our requirements in this respect better than any other product we have heretofore used, therefore we expect to continue its use so long as it is on the market.

Very sincerely,
THE DEAN IRIS GARDENS.
(Signed) John James Dean

EARTH TO EARTH AND DUST TO DUST

Use D. M. S. & B. SUPER-LIME, consisting of the decomposed remains of the most powerful and gigantic animals and human beings of the world's history, who now contribute to the strength of what they once made weak.

View of very small portion of the D. M. S. deposit where prehistoric water and land mammels fought and played on the shores of the Pacific previous to man's existance

GEO W. GOOCH
Analytical Chemist
306-311 Copp Bldg. Phone 13079
218 S. Broadway
Laboratory No. 9156

Los Angeles, Cal.
October 19, 1921.

Torrance Lime & Fertilizer Co.,
Los Angeles, Cal.

I have examined your sample of Composite Sample received Oct 13th, 1921. Marked for Nitrogen, Phosphoric Acid and Potash, and found it to contain:

Total Nitrogen	0.08%
Ammonia Equivalent	0.09%
Total Phosphoric Acid	32.84%
Total Potash (K_2O)	0.30%

(Signed) GEO. W. GOOCH,
Analytical Chemist.

(Duplicate)

ANOTHER HAPPY HOME

Anaheim, Cal.
April 25, 1921.

To Whom It May Concern:

Presuming it is the wish of every orange grower to improve the condition of his grove, and upon the request of Mr. F. L. Sexton, distributor of the D. M. S. & B. Lime, I freely give my experience with this particular line. In the first place, it is a fundamental fact that lime in some form or other in the soil, is essential to vigorous plant growth. On the particular spot in my orchard where most decided beneficial results were obtained, I put on eight tons to the acre. This spot was thirteen feet of dead sand, absolutely devoid of organic matter. Consequently, nothing would or could grow on such soil as eveything leached through. Each year this spot received its portion of fertilizer and as usual leached below the feeding roots. This inclined to keep the roots close to the surface and everything combined kept the trees in a pinched and starved condition. The trees are eight years old and are less than one-fifth the size of the trees in the balance of the orchard. The trees were very yellow and what little growth they would manage to put on would die back in the summer. In April, 1920, I put on the first application of D. M. S. & B. Lime upon this spot. Since then I have put on two other applications over the balance of the orchard. This D. M. S. Lime has produced a condition in the soil of this sandy spot whereby I was able to grow a crop of Melilitus three feet high, something that was impossible before; and has produced a growth on some of the worst trees the length of a yard stick. The entire orchard has received a corresponding benefit.

(Signed) A. F. FISHERING.
R. F. D. Box 141,
Anaheim, Cal.

Say D. M. S. when ordering.
SAY D. M. S.

EQUIVOCAL

A busy minister wished to prepare his Sunday sermon in peace, and instructed his Irish servant not to admit any one to his study until he was through. "Don't tell an actual untruth and say that I am not at home," admonished the good man, "but if any one calls, just give him an equivocal answer."

He wrote a good sermon and emerged in a couple of hours. "Well, Bridget," he queried, "did any one come?"

"Wan man, yer honor," replied Bridget. "But I did as ye tould me and give him a ekivikle answer. 'Is the minister to home?' sez he, and sez I 'Was yer grandmother a monkey?'"

There is no equivocal answer to D. M. S. Lime.

Read what one of our most eminent Engineers had to say about D. M. S. & B. Lime in the early stages of excavation:

Dr. Julius Koebig, Chemical and Mining Engineer, 612 I. W. Hellman Bldg., Los Angeles, Cal., says in part:

October 30, 1919.

Torrance Lime and Fertilizer Company,
Torrance, California.
Gentlemen:

The granular structure renders the lime easily available to the soil. The phosphoric acid, in a form as available as in bone meal, amounts to about 15 pounds per ton, which should give this lime sone an additional value for agricultural purposes.

Respectfully,
DR. JULIUS KORBIG.

Another noted engineer, in a letter directed to the Torrance Lime & Fertilizer Co., says in part

The natural assimilation of plant foods by the soil is no different from the physiological function of digestion in the human system. The breaking down of coarse plant foods by the aid of the sun, wind and rain can be likened to the period of mastication. In both cases nature has provided for disintegration and consequent pulverization as a means of reducing the food to a dissolved or soluble form, which is the only condition in which it can be assimilated. Lme, being the chief constituent of the bony structure of the human system, being over 90 per cent, and the chief element in the fibrous structure of plant life, it naturally follows that without this all-important element life in any form could not exist.

Yours very truly,
J. P. DE L'EAU.

Los Angeles, Cal.,
August 27th, 1921.

Mr. S. Maus Purple,
Gen. Manager,
Torrance Lime & Fertilizer Co.,
Lomita, Cal.
Dear Sir:

This is to attest that on Sunday morning, August 14th, 1921, I witnessed your experiment on a Dahlia plant which had three branches leading off of the main stalk 30 inches from the ground. One stalk about 32 inches long had three undeveloped buds on it. This stalk you broke entirely away from the main stalk, leaving only a vestige of skin connecting. You then laid it back into its natural position and made a poultice of D. M. S. Fertilizer and water which you bound all around the stalks at the break.

To date, August 27th, the entire plant has not wilted in the slightest. One of the buds is in full blossom, having a diameter of 4½ inches, and the other two are opening up. The broken stalkhas grown at least two inches and has thrown new leaves and new buds.

I want to thank you for allowing me to witness such a wonderful demonstration with your D. M. S. Fertilizer, which I have been using successfully myself for the past three months.

Yours very turly,
MRS. ROBT. A. IMRIE,
1844 Middleton Place.

Note.—Up to Oct. 22nd the mended branch has produced 12 new full blossoms and grown over 12 inches.

17 REASONS WHY YOU SHOULD USE D. M. S. LIME

1. D. M. S. Lime corrects acidity of the soil.
2. D. M. S. Lime improves the texture of soils—makes them more tillable.
3. D. M. S. Lime decomposes potash compounds and makes them more available.
4. D. M. S. Lime assists in the conversion of organic matter into available humus.
5. D. M. S. Lime aids the desirable fermentation processes.
6. D. M. S. Lime forms compounds with various chemicals necessary to plant growth and prevents their loss by leaching or filtering, especially in sandy soil.
7. D. M. S. Lime makes sandy soils more cohesive and retentive of moisture.
8. D. M. S. Lime makes clay soils porous and granular.
9. D. M. S. Lime promotes the nitrification of soil through the colonies of bacteria on leguminous plants.
10. D. M. S. Lime provides a favorable condition for beneficial action of soil bacteria.
11. D. M. S. Lime produces the sanitary conditions that prevent the growth of injurious bacteria.
12. D. M. S. Lime removes and overcomes the accumulations of poisons that are formed by the decay of humus and excretions from plant roots.
13. D. M. S. Lime is a plant food and is necessary to the growth of plants.
14. D. M. S. Lime releases, and makes usable, stored-up plant food.
15. D. M. S. Lime assists in restoring land to its high yielding power and original productiveness.
16. D. M. S. Lime is a corrector, a dissolver, a decomposer, a liberator of certain parts of the animal, vegetable and mineral substance contained in the soil, and is a fertility maintainer.
17. D. M. S. Lime insures increased production, more wealth, and a more permanent agriculture.

Use more D. M. S.

JOHNNIE KNEW

Johnnie (to new visitor)—So you are my grandma, are you?

Grandmother—Yes, Johnnie, I'm your grandma on your father's side.

Johnnie—Well, you're on the wrong side, you'll find that out!

The old Roman husbandman—Cato—refers to the use of lime and marl on the land, and he lived 200 years B. C. He would be alive today had he used D. M. S. & B. Super-Lime.

University of Southern California
College of Dentistry
Biology
J. Z. Gilbert, A. M., Sc. D., LL. D.

Los Angeles, Calif.
October 19, 1921.

My dear Mr. Purple:

I am so glad to know that your work at Torrance is prospering.

When visiting the group I was much interested in the character of the deposit from the standpoint of fossil material.

Since visiting there I have looked up some of the finds and note that there are about 25 species of shells and that the shark tooth is probably new. May I ask whether any more specimens are available for study? I would be pleased to arrange for a complete collection for special identification and study. Would like to arrange a visit to the quarry soon, perhaps Saturday afternoon.

A word concerning your pleasure in the matter would greatly oblige me. I had hoped to have some of the material from your place on my ranch at LaVerne, but I fear the distance is prohibitive in price.

Very sincerely yours,
J. Z. GILBERT.

GEOLOGIST'S REPORT

1829 Whitley Ave.
Hollywood, Cal.
August 19, 1921.

Mr. S. Maus Purple,
Torrance, California.
My dear Sir:

I beg to thank you for the very complete pamphlet you sent me in reference to the deposit of decomposed shells which you are mining and selling for land fertilizing purposes, and which covers the situation in what appears to me a very satisfactory manner for all enquirers.

Lime, as we all know, is essential in soils even when artificial manures are used, and when, as in your case, there is in addition the phosphates derived from animal remains, your product becomes a most efficient and valuable plant food.

I am of the opinion, judging from a short visit to your property and after reading the pamphlet you sent me, that your deposit was formed near the mouth of a river emptying into the ocean, in the shallow brackish waters of which lived and died the organisms whose shells in incredible numbers accumulated for centuries and centuries.

The bodies of terrestial animals were floated down the river, and their bones added to the remains of the shell organisms; they were afterwards consolidated into a partially stratified shell rock such as you find it. From the evidence at hand the deposit apparently belongs to the Tertiary period, judging from the fauna remains and especially from the immense shark's teeth discovered there, which fish existed in large numbers, and of a great size, during the Eocene and Miocene divisions of that geological period.

In this connection I should view with doubt the reported finding of human relics, whether of man, or his works, or tools; as far as present knowledge goes no evidence has been produced showing that man existed during the Tertiary period.

There appears to be no proof lacking that you have a valuable deposit of soil fertilizer, in a very cheap and available form, the use of which will prove of inestimable benefit to the orchardist and farmer.

Sincerely yours,
ERNEST G. LOCKE,
Geologist.

NO LOSS THROUGH DETERIORATION BY STORTGE

We believe D. M. S. Lime will singly and alone render land more productive than any other substance used as a fertilizer.