RICE
RESEARCH UPDATE

BY PROFESSIONAL RESEARCHERS

To prove without question that Medina does improve rice yields, it was decided to test the product on a large number of acres and in small plots throughout the Texas rice belt using professional researchers. All tests were replicated 3 times from commercial applications on farms rather than small pre-planned manipulated plots.

- The first year all observations were positive and conclusive for Medina.
- The second year small plots and combined strips were cut from comparable areas in treated and untreated parts in the same field. Again, Medina consistently improved yield and quality at harvest. (Interestingly, a favorable yield response is not visible unless it is more than a 10% increase.)
- The third year, 11 more locations were harvested where Medina was applied from the top to bottom of the field, across the levees and comparisons were made in the same cuts at the top, middle and lower part of the fields.

CONCLUSIONS BY RESEARCHER:

The truly consistent feature of Medina for rice is its ability to increase weight of rice (yield) and quality.

On occasion I have observed improved stand, improved soil condition, improved tillering, uniformity of maturity of heads at harvest, greater stalk size, height and strength, greener color, less head disease, improved condition for second crop, etc. However, all of the above were not consistently observed from test to test. **One characteristic stands out as the possible common denominator as to Medina's consistent yield performance – increased leaf surface area and condition.** A common complaint while combining Medina-treated rice is, "Man, that stuff makes too much foliage." **It stands to reason that since the leaf is the manufacturing plant and the grain is the storehouse that this could be the reason.** Whatever the reason, it works, as the included performance records show.

Results of Tests

1st Year

Location: **Northington Field near Egypt, Texas**

Medina applied December 22. 3 quarts per acre. *Farmer's observations:* Medina area soil pulverized better. Rice in Medina-treated area appeared more uniform than regular check.

Harvest Results:

	BARRELS
3 Quarts Medina	33.50
Regular Program	30.25
Medina Advantage	3.25

2nd Year

Location: **Near Egypt after 2 years Medina.**

Farmer observations: Medina rice grew more vigorously with a greener, healthier appearance. This was especially noticeable prior to flooding. There was a larger stream of rice coming out of the auger spout where Medina was used. (NOT REPLICATED)

Location: **One mile north of Ganado.**

Medina applied January 11 at the rate of 3 quarts per acre. *Observations:* Medina areas were more uniform, both in stalk height and head size. Measured plots produced the following:

Results:

	BARRELS	
Medina (1)	39	Advantage for Medina:
Medina (2)	40	4 barrels in (1), 5 barrels in (2)
Check-field Practice	35	

3rd Year

Location: **Miller field near Chesterville.**

LaBelle rice on light sandy soil. Medina fall applied.

	AVERAGE DRY WT.	% INCREASE	BARRELS
Medina	5,330	9.6	32.9
Check	4,860		30.0
Medina Advantage	470		2.9

Location: **Garwood, Texas.**

LaBelle rice on medium textured sandy loam soil.
Medina applied December – 3 quarts per acre.

Results Block One	AVERAGE DRY WT.	% INCREASE	BARRELS
Medina	6,300	8	38.8
Check	5,810		35.8
Medina Advantage	490		3.0
Results Block Two			
Medina	5,661	14	35.0
Check	4,961		30.6
Medina Advantage	700		4.4

More 3rd Years

Location: **Chesterville, Texas**

LaBelle rice on medium sandy loam soil. Medina applied in December with untreated check.

	Avg. Dry Wt.	% Increase	Barrels
Medina	5,030 lbs.	8.5	31.05
Check	4,637 lbs.		28.61
Medina Advantage	393 lbs.		2.44

Location: **Orange Hill near Sealy, Texas**

Medina check strip applied in January. Sandy loam soil. LaBelle rice.

	Avg. Dry Wt.	% Increase	Barrels
Medina	4,630 lbs.	15.85	28.5
Check	3,990 lbs.		24.6
Medina Advantage	740 lbs.		3.9

Location: **Beaumont, Texas (O'Brien Field)**

LaBelle rice on dark clay soil. Medina applied in winter with an untreated check strip.

	Avg. Dry Wt.	% Increase	Barrels
Medina	4,517 lbs.	13	27.8
Check	3,990 lbs.		24.6
Medina Advantage	527 lbs.		3.2

Location: **Beaumont, Texas (Funches Field)**

LaBelle rice on dark clay soil. Medina applied in winter with an untreated check strip.

	Avg. Dry Wt.	% Increase	Barrels
Medina	4,550 lbs.	10	28.0
Check	4,113 lbs.		25.4
Medina Advantage	437 lbs.		2.6

Location: **DeKalb No. 2 (field near Chesterville, Texas)**

Vista rice on sandy soil. Field **treated in fall** with check strip left untreated.

	Avg. Dry Wt.	% Increase	Barrels
Medina	7,268 lbs.	20	44.86
Check	6,047 lbs.		37.33
Medina Advantage	1,221 lbs.		7.53

Location: **Wharton, Texas**

LaBelle rice on **dark clay soil**. Field treated with Medina in a perpendicular strip across levies in February.

	Avg. Dry Wt.	% Increase	Barrels
Medina	5,330 lbs.	8.9	32.9
Balance of Field	4,900 lbs.		30.2
Medina Advantage	430 lbs.		2.7

Location: **DeKalb No. 1 (field near Chesterville, Texas)**

LaBelle rice on sandy soil. **Field treated in fall** with check strip left untreated.

	Avg. Dry Wt.	% Increase	Barrels
Medina	5,600 lbs.	15	34.5
Check	4,875 lbs.		30.0
Medina Advantage	725 lbs.		4.5

Location: **Tree Piece (field near Eagle Lake, Texas)**

LaBelle rice on sandy soil. Field treated in fall with check strip left untreated.

	Avg. Dry Wt.	% Increase	Barrels
Medina	5,770 lbs.	8	35.6
Check	5,297 lbs.		32.7
Medina Advantage	473 lbs.		2.9

The Economic Picture

The average increase for all tests for 3 years, 3.73 barrels per acre X $18.00 a barrel equals a return of $67.14 more per acre.

Subtract the cost of Medina and its application and you have **a return of more than $8.00 for each $1.00 invested** in Medina. Plus many of the advantages given in the conclusions on page one.

How much more do you need do prove Medina pays?

We have proven results – field scale harvested and weighed!

We have *time* proven results!

Properly applied, Medina has not failed to improve rice yields over its check plot in the years we have tested it.

We ran statistics!

Of all tests, we proved a 11.9% average yield increase in favor of Medina. The least increase was 8%; the highest, 20%.

FOR BEST RESULTS:

Apply 1 gallon Medina per acre after fall plowing. No need to work it in, light discing-harrowing may be done. The earlier Medina is applied the better the results have been. Early application allows the increased soil organisms to more completely break down old crop residues which destroy many disease organisms that would over winter and attack your new rice.

It may be applied with air or ground rig.

MEDINA DOES NOT COST — *IT PAYS YOU!*

FOR STRONGER, MORE VIGOROUS SEEDLINGS, SPRAY 1 PINT OF MEDINA PLUS PER 50 POUNDS OF SEED AS A SEED TREATMENT.

Activate Your Soil

A Pinpoint View

Once in a great while, a new practice emerges and takes its own place in the crop production routine . . . something that doesn't substitute anything you are doing now but complements your regular program, puts on a finishing touch. There is such practice now: the application of a material that releases a greater amount of the potential capability of natural and commercial fertilizers.

The material is called Medina Soil Activator. "With proof of performance now available, there will be more Medina applied for the 1982 rice crop than has been applied in any previous year," says Jack Megason, vice president of Medina Agriculture Products Co.

What's behind all this? "Alkali soils, mainly," says Howard Alderson of Stuttgart, Arkansas. Alderson is an independent chemical dealer in that rice area and knows the ins and outs of the chemical requirements for contemporary rice production. "This is the first time we have really had something available that can tackle this alkali problem so many of our growers face," he says.

Problem is growing. "The alkali problem is growing instead of getting better," says Alderson. "This trend to underground irrigation is aggrevating the problem. There are areas in many cultivated fields that just don't produce due to alkali deposits. A grower I know had a 60-acre field with about four problem acres in it. Those four acres just would not produce rice. Last year, as a test, he treated these four acres with this material and they yielded as well as the other 56 acres in that field."

Putting those four acres back into production meant more than 400 more bushels of rice out of that field.

The usage of this material is not limited to alkali soils by any means. That happens to be the main problem around Alderson's area. Most soils can make better use of natural and commercial fertilizers. This material may be one way to accomplish that.

There is no miracle involved here. The Medina material is a compound that seeps into the soil and activates organisms to unlock fertility that is already present but not in a usable form. "It also loosens the soil and allows more moisture in the soil," says Alderson.

Soil is another world. Your soil is a world of its own. It may very well be the least understood factor in your total operation. There are many things about it that we don't know yet and one of them is the secret of unlocking the potential fertility to its fullest. Materials such as this soil activator are making in-roads in this direction.

For just a moment, let's go down into the world of soil and see the composition and activity involved.

Let's shrink to the size of a pin point for a more intimate view of the soil. Then we can see that soil is a living, dynamic world of its own. From our minute viewpoint, we see a jumble of immense boulders, the grains of sand; head-sized stones, the silt, and well mixed throughout are much tinier, gleatinous chunks made of plates stacked like a deck of cards, the clay particles. These various sized particles are loosely cluttered everywhere to make vast open caverns. Many of the

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ACTIVATE YOUR SOIL
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Howard Alderson examines rice from acres where alkali had prevented production in the past.

various particles are cemented together by a sticky, spongy material called humus. Many other particles hold together as if magnetized.

Firmly attached to all the clay particles and to the humus are a variety of geometric molecules of various chemical compounds. Numerous other chemicals seethe through the coating of moisture and puddles of water that surround everything.

Scattered throughout are pieces of straw, twigs, and leaves . . . the organic matter, looking like so many giant timbers caught in a landslide. The plant rootlets, resembling huge irregular shaped pipes, suck in the chemical-laden broth. A jumble of strange plants . . . yeasts, molds, and algae . . . grow everywhere.

Multitudes of moving, living organisms pulse and slither throughout. There are the earthworms which look like monstrous sea serpents and amoeba, the lowest animals, appear as crawling, irregular blobs of matter. In greatest number are the many different kinds of bacteria appearing as so many round, rod-shaped or cork-screw balloons. These are single celled, microscopic, living organisms with some features of animal matter and some of plant matter. They are most important in soil processes.

The only objectives of all this mass of living organisms are to feed, grow, reproduce, and die. Organisms feed on organic matter or on chemicals, or on each other. All the while, the plant rootlets continue to draw sustenance from the simple chemicals which are dissolved in the moisture as the end result of all this activity.

That's an inside look at your soil. There is a mass of organic material not being utilized and utilization is one of the major accomplishments of this new soil treatment.

In recent tests conducted by microbiologists at the nation's top agriculture laboratory, Medina increased the activity of soil organisms by 2000 percent in just 2 weeks.

Apply now for rice. Your Medina should be applied six weeks to 60 days before planting, at the latest. It can be ground or air applied . . . just like fertilizer. The standard application is one gallon of material in 20 gallons of water per acre by ground rig. It may be mixed in with fertilizer. By air, 1 to 1 Medina and water may be applied.

Needs oxygen. After applying the material to the surface of the ground, don't make the mistake of plowing it under. It can be scratched over with a springtooth harrow but don't turn it under two or three inches. "This material has to have oxygen to work," says Alderson. If it's turned under, it will not work."

It also needs time. "When Medina is given 60-90 days to work before a rice crop is seeded, we know of no time when it did not improve rice yields," says Megason.

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