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Astec Waterproofing & Protective
Coating Systems.

24 Pinn Street,

St. Marys.

S.A. 5042.

Attn. Gary Allsopp.

Hello Gary,

Well it appears that your Astec EC 100 ceramic insulating coating system is working well, in fact the difference it has made is quite remarkable and I can see that its many benefits are going to help make my chicken growing business easier, cleaner and more profitable.

And this will become more apparent as you read on.

First up though, you'll recall that at our Murray Bridge farm, shed # 3 is insulated with spray on foam, from the (southern) heated end, along half its length only and the remaining northern half was just bare iron.

So you'll appreciate that during the winter months this presented a problem with excessive heat loss from the northern end, particularly during the night.

Here's a typical scenario. With the heater on, the temperature at the southern end was 24° C, however the northern end was down to between 10° and 14° C. Because of this 10° to 14° C difference, the birds crowded at the southern end of the shed and as you know, when chickens are cold they shiver and over eat just to stay warm but with negligible weight increase.

This impacted negatively on the feed conversion ratio and on the last batch, at average age of 42 days, the average bird weight was down to 1.74k/g. We had cause for concern because the goal weight for this strain of bird is 1.9k/g to 2.0k/g. To add to the expense, we also had to run the gas heater for 5 weeks instead of the normal 4 weeks.

So after a number of discussions with you about the insulating benefits of Astec EC 100, you'll recall that I decided to "bite the bullet" and make the northern half of shed # 3 a test case by having your company insulate that section of roof with the Astec system and then we would measure the results.

Temperatures were recorded at either end of the shed and to our relief it was found that the **temperatures were now even**. In other words, **the Astec system had**

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..... caused the northern end to recoup that 10° to 14° C heat loss.

Let me put it yet another way, we found that the **Astec coating** on the roof exterior **reduced the heat loss to a level which equalled to the performance of the spray on foam** on the underside of the roof.

Consequently, **right on schedule at week 4, the birds started to move quite happily to the northern end** which again showed that the Astec system had done its job and as my farm manager Gary Odgers often says,
"The birds will always tell you."

It's also interesting to note that by comparison, at average age of 42 days, the average bird weight was 2.04k/g.

That represents an average gain of 300 grams per bird over the previous batch.

Now this is significant indeed when you consider that the shed holds 18,000 birds, so **that equates to 5,400k/g of meat gained over the previous batch and 720k/g of meat over the target.**

Another interesting observation. Before the Astec system was applied it took 42 days to obtain an average weight of 1.74k/g.

With the Astec system applied, the birds reached an average of 1.73k/g in just 37 days.
That's a gain of 5 days !!!

In previous discussions you showed me how during the summer months the Astec system will out perform 4 inches of foam insulation and as a result, will **help to lower the mortality rate by keeping our sheds much cooler.**

Akin to that, you also mentioned that during winter, the Astec performance to reduce heat loss is equal to 1 inch thick foam bats.

Well, here's yet another convincing argument for you. Shed # 2 which just happens to be insulated with 1 inch blue foam bats was compared with shed # 3 after the Astec system was applied.

The sheds are the same size and **recorded the same interior temperatures and also equal average bird weights.**

We are also impressed by the reduced level of condensation. In fact since the Astec system was applied, the condensation in shed # 3 has been reduced conservatively by half, and as Gary put it,
"There's now, no where near as much condensation."

And not only that, shed # 3 has noticeably less condensation than shed # 2 with the 1 inch blue bats. This is another important benefit to us because when condensation drips into the feed pans, the feed can become toxic and kill the birds. So this **will contribute to keeping the mortality rate down.**

Gary also estimates that **this reduction in condensation is going to save him around an hour per day in feed line cleaning and related maintenance** and he also mentioned that less condensation means that the shed now dries out much quicker.

Foam has its disadvantages and replacing the internal foam methods of insulation with the external Astec system is going to present a number of additional benefits.

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The foam appears to be gradually eaten away by the chemical cleaning process after each batch, often tends to peel off, the birds pick at it, beetles and mice live in and under it and in the event of a fire, the fumes from the foam are to say the least, hazardous.

So it stands to reason that if the internal foam methods were removed, **that this would certainly help to control mice and beetles, reduce the usage of beetle spray and enhance work safety.**

Gary has also mentioned that foam has a much lower reflective ability than iron so it tends to darken the shed and so increase the need for more lighting.

Then there's the occasional problem that occurs with hinge bind on the doors that have spray on foam applied, you see they sometimes become wet and waterlogged.

The extra weight on the door binds the hinge and the door becomes difficult to operate. With Astec on the doors and walls hinge bind would not be an issue.

As I've mentioned to you on a number of occasions, I see another big plus for the Astec system in the area of roof maintenance.

When for example a sheet of iron has to be replaced, instead of going to the expense of getting the foam contractor back to treat the underside of that particular sheet, I can simply apply the Astec system myself.

The Astec system will also protect the sheds and so increase their longevity.

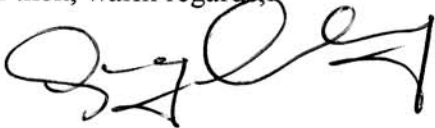
Last but not least are the aesthetics. I can see that there would be a dramatic lift in the appearance and general tidiness of the sheds with Astec. It would certainly give them a better than new image.

So I guess this all adds up to making the practical side of the business easier to manage.

Well as you can see Gary, the Astec system brings with it a number of problem solving benefits which as I mentioned at the beginning, just have to make the operation of my business easier, cleaner and more profitable.

I'll look forward to talking with you so that we can arrange to have all my sheds systematically insulated with the Astec system.

Until then, warm regards,



Greg Cowling.

P.S. One more important observation. The southern end of shed # 3 also has the side walls insulated with the spray on foam. The northern (Astec) end has bare iron. So when you consider what the Astec system has achieved by coating the roof only it is a great testimony indeed to Astec's insulation value and all the more reason to have the walls coated as a part of the process.