



MULTILAYER ISOTHERMIC STEEL PLATES



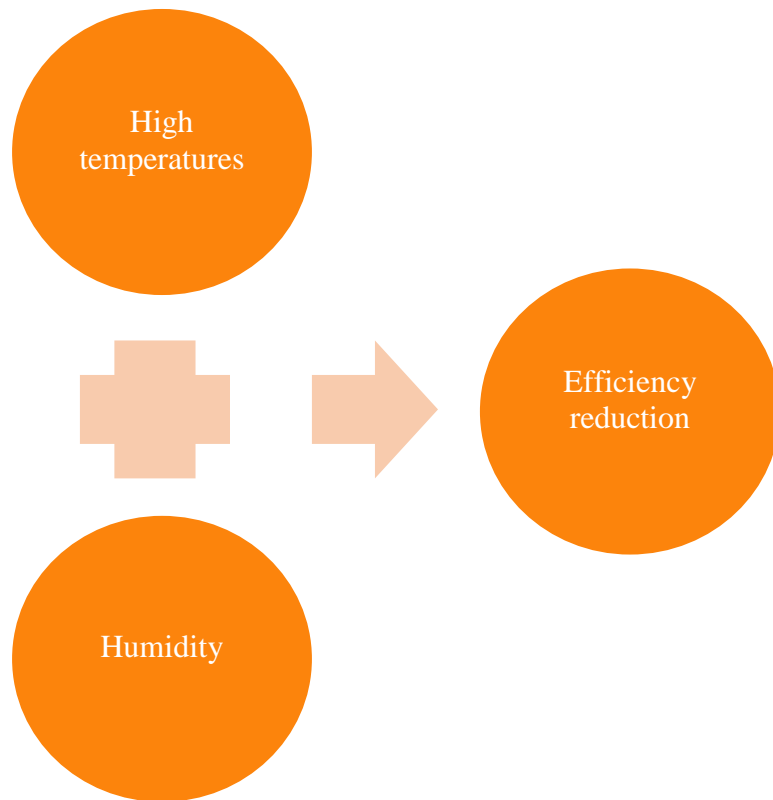
Guarantee your productivity under the same roof.

Thermal Insulation

Temperature is a determinant factor in any agricultural production system, because any variation (excess or defect) will directly influence in the quality and quantity of the grains and or animals production.

The MULTILAYERT ISOTHERMIC STEEL PLATES will provide your construction double thermal insulation because of the components' combination and its colors that will allow greater reflection of the sun rays. The high temperatures negative effects over the agricultural production area variables because of the different development stages ...

It's been proven the temperatures over 85°F produces stress on animals and high humidity levels on grains, reducing efficiency in the productivity.



Cattle and Horses



High temperatures (over 85°F) will affect cattle's production (milk, meat or both) to the point that it will decrease to half in spite of being high performance animals. Subject to high temperatures they will consume more water to give their bodies an environmental thermal balance, therefore decreasing its food intake. This will reduce food/milk and food/meat conversion efficiency. The effects on the environment/food/meat relation can be observe on every cattle's life stage, been steers, milk production cows, bulls or calves.



In very hot times, horses can drink lot of water diminishing food intake, which will cause stomach problems and colic. Lactating and pregnant mares and stallions can suffer from behavioral problems, physiological disorders and health problems that will worsen the animals' quality.

High temperatures can change breeding mares' heat and ovulation cycles, decreasing mating and its effectiveness, which represent a big problem among animals that have a low reproductive capacity like horses.

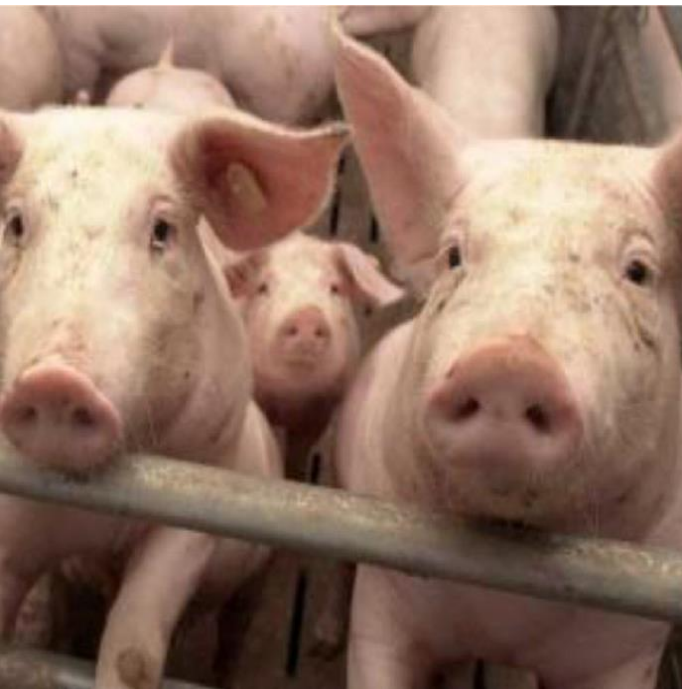
BIRDS AND PIGS



With an increase in water consumption, the level of feces increases, elevating the ammoniac gases concentration and the CO₂ in the environment. This will result in respiratory disorders and other diseases besides the efficiency reduction of the food conversion/meat because of the decrease in food consumption.

Laying hens will be affected too.

Nighttime production: A supply of artificial lighting for 3-4 hours during nighttime will increase production levels on farms with 10-12 light periods. MULTILAYER ISOTHERMIC STEEL PLATES, with its white-on-white color, will warranty an increase in artificial lighting during nighttime.



A decreasing in food consumption will cause fetus abnormalities, anemia and high mortality among newborns pigs.

Lactating sows (females pigs) not only will suffer from weight lost but theirs milk production will decrease and as a consequence, the baby pigs will have less weight and higher death rate among litters. Lost in appetite will decrease not only mating effectiveness but its occurrences too.

GRAINS

- It been proven the grains that contains humidity levels greater than 14.5% are subject to fungus and insects attacks. Grains hygroscopic balance (loss or absorption of humidity from the surrounding environment) is in the temperature and humidity of the storage place.
- Sudden changes on external environmental causes physical variations on the humidity level of the covered area affecting in a negative way the preservation and quality of the grains, that will show on the aroma, color and taste.
- Humidity excess will stimulate the cellular respiration too, causing and accelerating the germination process, which will bring death to the seed embryos.
- The MULTILAYERT ISOTHERMIC STEEL PLATES, place on the roof and walls, will maintain the required temperature level for the grains good conservation because they will form a thermal barrier that will contribute to decrease the “Thermal Impact” effect.



MULTILAYERT ISOTHERMIC STEEL PLATES

Easy adaptation, quality, showiness and technology

Because of its steel core, MULTILAYERT ISOTHERMIC STEEL PLATES, can easily, and in a short period of time, adapt to any type of roof (curved or straight).



MULTILAYERT ISOTHERMIC STEEL PLATES' colors, will give your barn a decorative touch that will add beauty, great quality and technology that will guarantee a long life to your your property, avoiding costly maintenance investments and repairs.

HYGIENE AND SANITATION

Good sanitary conditions are vital in an agricultural and livestock environment, where productivity depends on the good control of disease carriers.

Livestock: A good insects control, specially flies, are necessary to have herds' highest performance. Bites will cause weight loss, and the flies, since they lay on dead corpses and fecal matter, are carriers of a great deal of serious diseases. TRTINITY METAL ROOF AND STEEL STRUCTURES, CORP. studied this problem and got a plate which blue transparent color applied to its interior, will repel these insects, preventing them from laying on it and decreasing them from spreading.

Agricultural: The pests and fungus' spread that affect noticeably grains quality with its adverse effects, is highly decrease by the MULTILAYERT ISOTHERMIC STEEL PLATES' thermal action, because they contribute in keeping temperature and humidity in optimal conditions.

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Anticorrosive

TRTINITY METAL ROOF AND STEEL STRUCTURES, CORP., with its highly advanced technology, has produced an ISOTHERMIC STEEL PLATE which quality and internal depth guarantees perdurability superior to any other roof system, being highly resistant to corrosive agents produced by animals drooping's.

Acoustic isolation

Sound can cause an alteration in animals' behavior. MULTILAYERT ISOTHERMIC STEEL PLATES decrease its intensity in 20db approximately. Sounds, thunders and factors such as nervousness, reduction in appetite and stress, are considerably lessen avoiding counterproductive effects on sheltered animals.

