

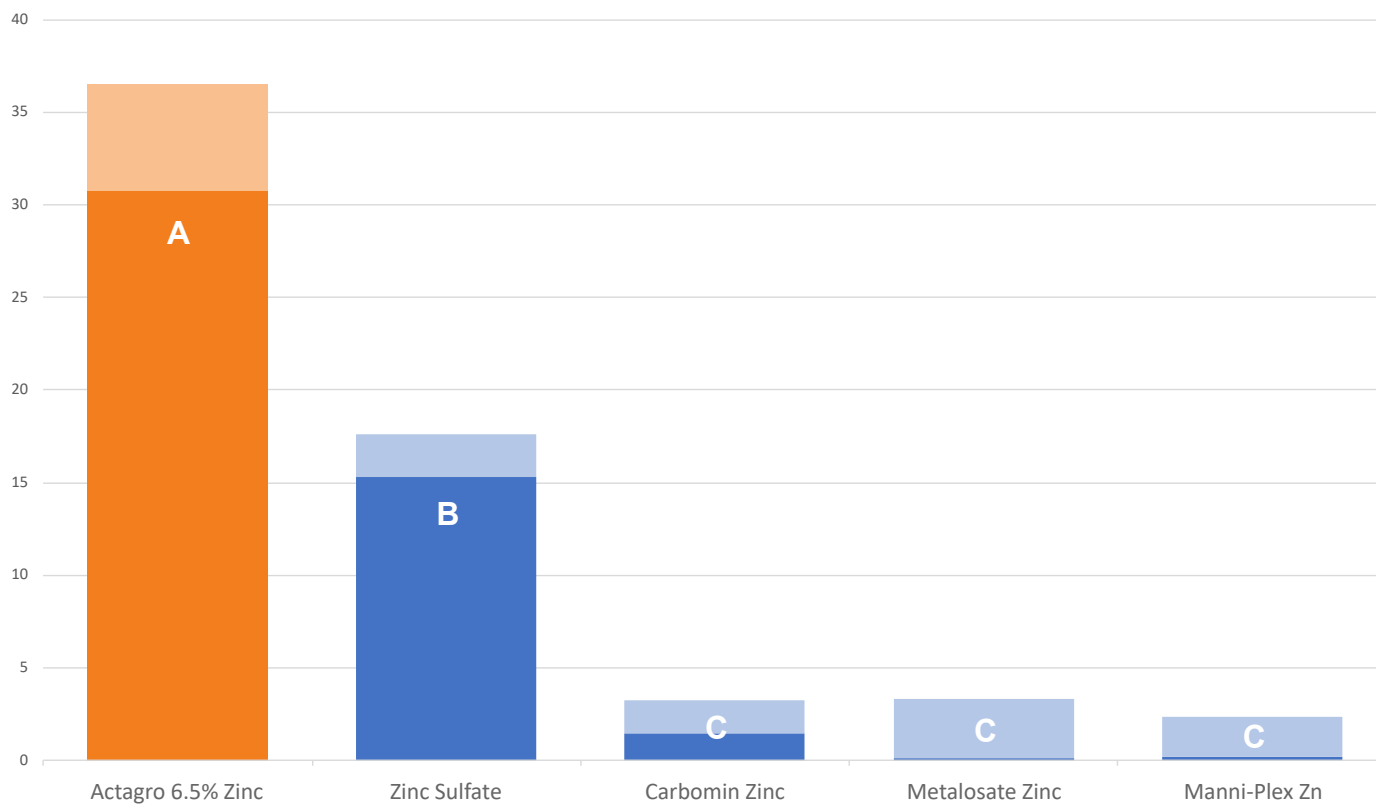
6.5% Zinc

Superior Membrane Permeability

Actagro 6.5% Zinc is a highly available form of liquid zinc (Zn) made with Reacted Carbon Technology™. Using an in vitro system, our scientists have compared Actagro 6.5% Zinc with other leading zinc products and found significantly better leaf penetration. All products were applied at an equal Zn concentration of 1,000 PPM, with the percentage of solution (% Transport) that has passed the membrane measured at the end of the incubation.

| Product Name | Zn % | Source of Zn | Oz Product/Gal Water | Log Pe | % Transport |
|-------------------|-------|---------------------|----------------------|------------|-------------|
| Actagro 6.5% Zinc | 6.5 | Zinc Sulfate | 1.66 | -4.75±0.05 | 33.65±2.86 |
| Zinc Sulfate | 35.5 | | 0.32 | -5.11±0.03 | 20.67±2.71 |
| Carbomin Zinc | 7.5 | Zinc Polysaccharide | 1.44 | -6.03±0.20 | 2.34±0.90 |
| Metalosate Zinc | 6.351 | Zinc Amino Acid | 1.7 | -6.40±0.53 | 1.72±1.62 |
| Manni-Plex Zn | 7 | Zinc Nitrate | 1.54 | -6.48±0.47 | 1.26±1.07 |

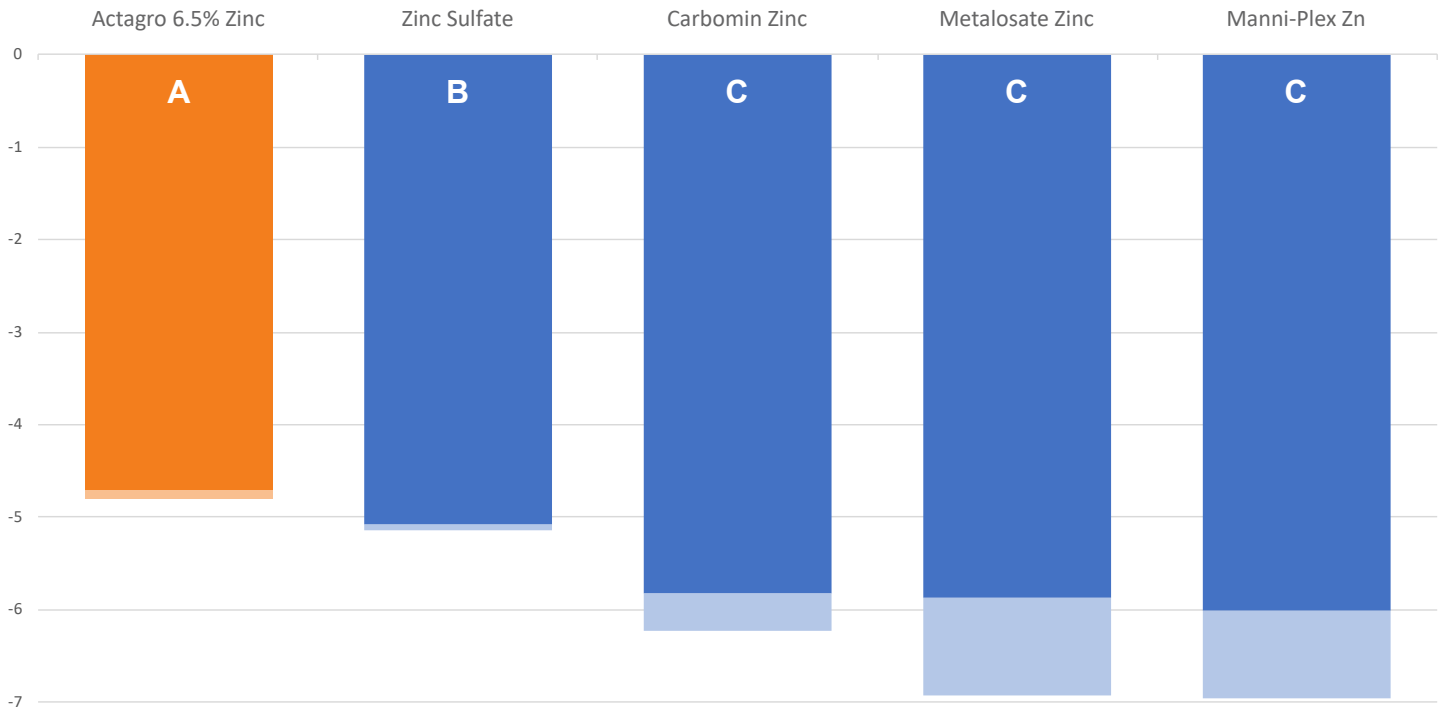
Percentage of Transport



Zinc penetration through a simulated leaf membrane in vitro with 4 replicates per treatment. Zn penetration was measured after 2 hours. Letters show significant differences by ANOVA at $p < 0.05$.

Permeability

Log Pe is the rate of permeability over time, where Pe is “effective permeability”. The negative aspect means that the smaller the bar, the less time needed for the solution to penetrate the leaf membrane.



Zinc penetration through a simulated leaf membrane in vitro with 4 replicates per treatment. Zn penetration was measured after 2 hours. Letters show significant differences by ANOVA at $p < 0.05$.

Actagro Nutrients are Better – Proven by Science

Foliar absorption occurs when plant nutrients pass through the waxy cuticular membrane and/or the stomata. Various methods are employed to improve foliar absorption, but Actagro’s approach is different. Our products allow better penetration into the leaf by transporting more ions across the leaf surface and into the leaf. For leaves, rapid penetration is important because when the spray dries on the leaf, penetration cannot proceed.