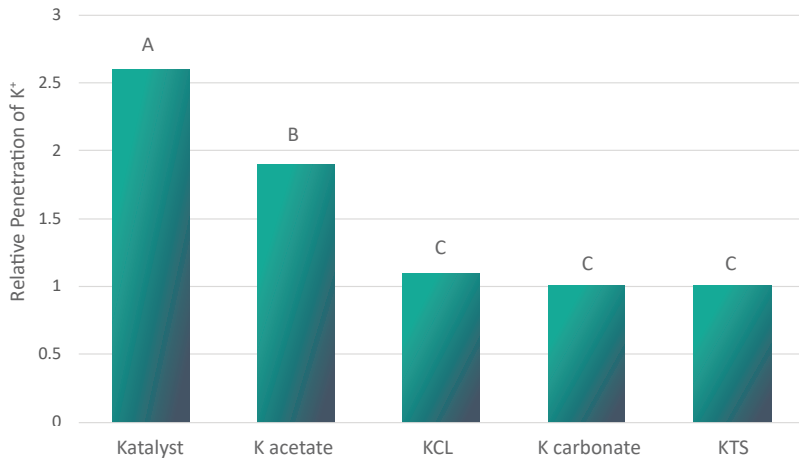


Superior Membrane Permeability

Katalyst (0-0-25) is a highly available form of liquid potassium made with Reacted Carbon Technology™. Using an in vitro system, our scientists have compared Katalyst with other leading potassium fertilizers and found significantly better leaf penetration and root uptake.

K+ Root Penetration



Proven Results with Soil-Applied Katalyst

Permeability studies were conducted using an artificial membrane (for root/leaf). We measured the amount of K+ which passed through the membrane under various treatments, including Katalyst. The results are expressed in the relative permeability and are a measure of the amount of K+ that diffuses across the membrane over 18 hours. In these charts, larger numbers mean faster rates of penetration. For roots, rapid penetration is a measure of more efficient root uptake.

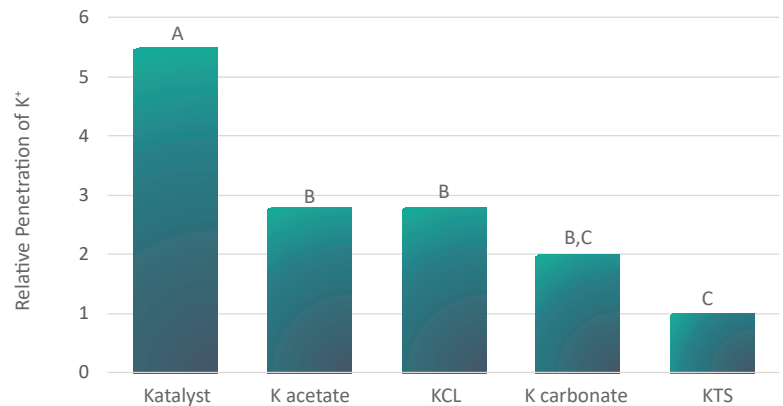
Potassium penetration through a root membrane in vitro with 12 replicates per treatment. Letters show significant differences by ANOVA at $p = 0.05$.

Proven Results with Foliar Katalyst

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.

Potassium penetration through a simulated leaf membrane in vitro with 12 replicates per treatment. K+ penetration was measured after 18 hours. Letters show significant differences by ANOVA at $p = 0.05$.

K+ Cuticle Penetration



Actagro Nutrients are Better – Proven by Science

- Katalyst penetration of K+ across the cuticle is superior to competitors
- Actagro's improved penetration of K+ means better plant growth