

KARRIKINS – NEW REGULATORS OF SEED GERMINATION AND PLANT GROWTH

SUMMARY

Karrikins (KAR, 3-methyl-2*H*-furo[2,3-*c*]pyran-2-one) are a new group of plant growth regulators detected in the smoke from burning of plant materials. These compounds stimulate seed germination of many plants growing in areas where fires occur regularly and frequently, but also break dormancy and stimulate germination and growth of plants from other ecosystems. The primary dormancy seeds of *Arabidopsis thaliana* are suscepti-

ble to KARs in smoke. This may indicate that KARs may also occur in environments other than those that are vulnerable to fires. It seems that KARs together with other important signal molecules, ABA and GA, are involved in breaking the dormancy and stimulating seed germination in the most favorable environmental conditions. However, until now the mechanism of action of these compounds is not clear.