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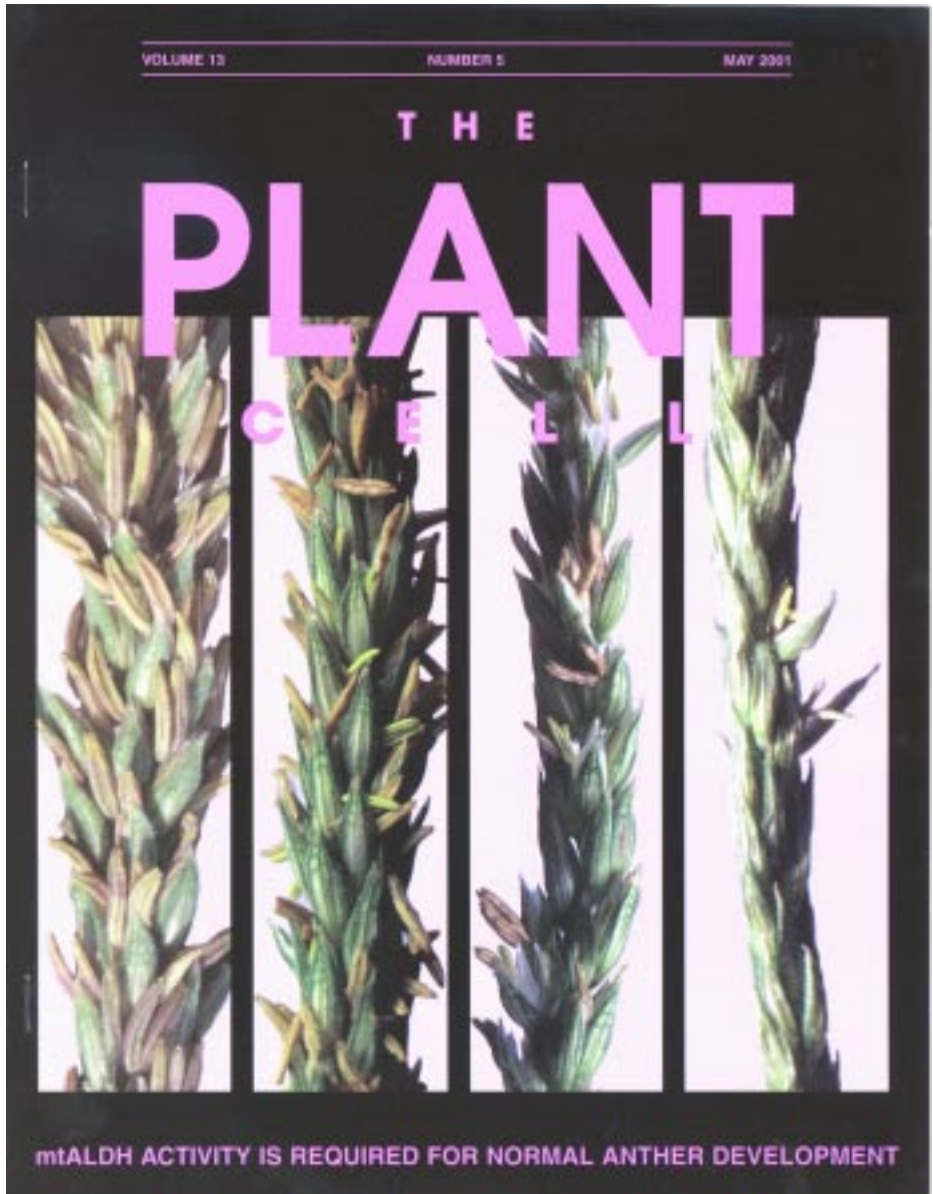
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*Feng Liu, Xiangqin Cui,
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Cytosplasmic male sterility (cms) is a maternally inherited inability to produce functional pollen and is a widespread phenomenon in the plant kingdom. In many cms systems, restoration of male fertility can occur in the presence of specific nuclear genes, termed restorers. Because cms and nuclear restorer systems play important roles in hybrid seed production, an understanding of the molecular mechanisms that lead to cms and fertility restoration has direct relevance to US agriculture. The *rf2* gene, a nuclear restorer of cmsT maize was shown to encode an enzyme termed an aldehyde dehydrogenase. This finding provides a unique opportunity to study the molecular mechanism associated with fertility restoration in a cms system. In addition to its importance in fertility restoration of cmsT maize, this gene is also required for male flower development in normal maize.

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