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LeafWorks introduces cannabis sterility RNA spray (non-GMO) for better hybrid seed production

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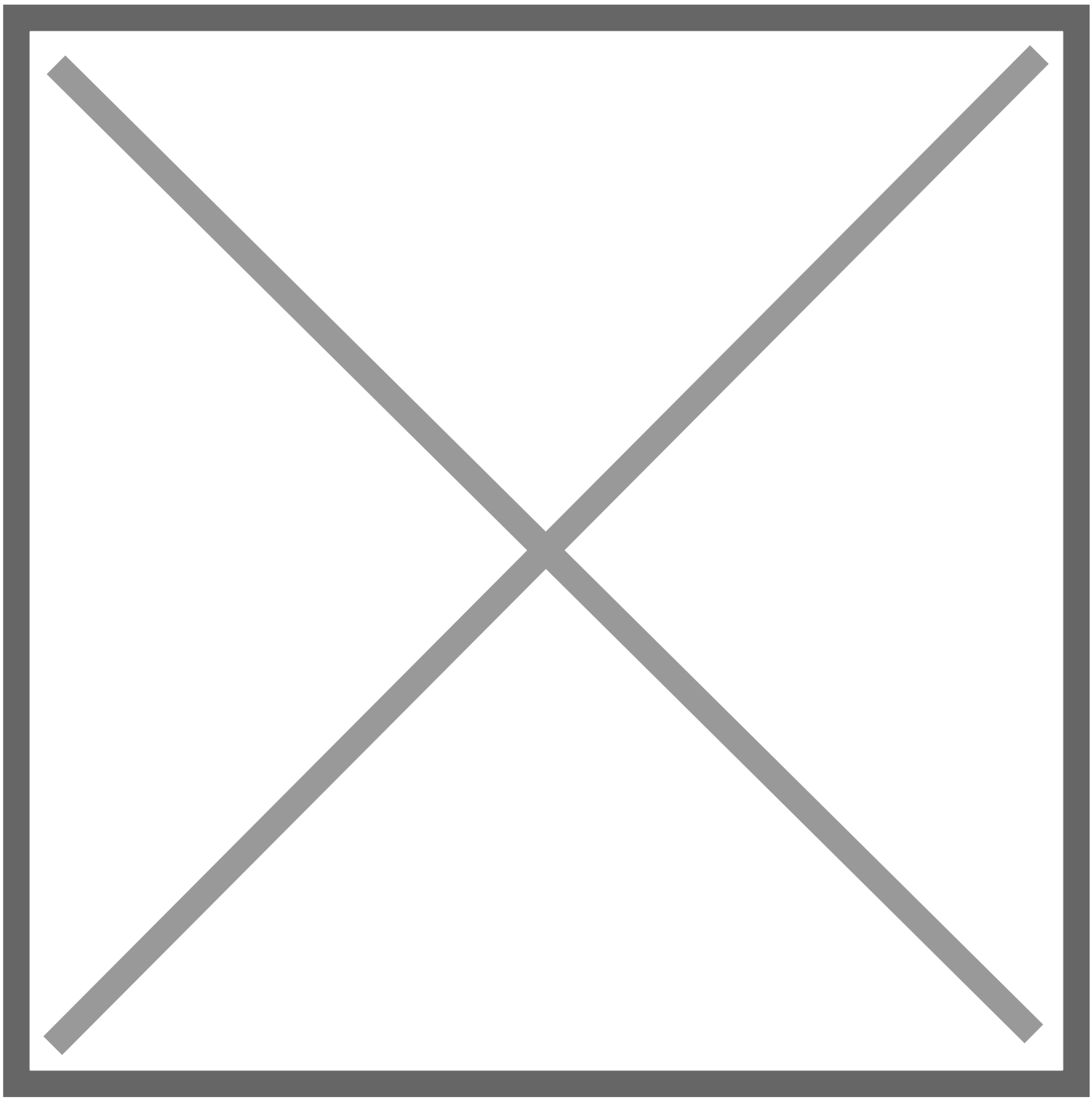
LeafWorks, a trailblazing female-led plant genetics and testing company specializing in botanical identification for cannabis and hemp, has introduced a cutting-edge non-GMO classified RNA spray designed to control male sterility genes. This technology offers wide-ranging benefits, including mitigating the risk of cross-pollination and hermaphroditism and producing male-sterile plants for efficient hybrid seed production. The company has also submitted the technology prototype as a provisional patent application with the law offices ofÂ Fish and Richardson LLPÂ to solidify patent protection on the use of male-sterile genes for commercial applications.



Hermaphroditism is one of the most difficult agricultural problems in cannabis and hemp. Hermaphroditic plants, which develop both male and female flowers, are common in commercial cultivation and can significantly harm crop success and product quality by causing unwanted pollination. Pollination significantly lowers cannabinoid and terpene production, shrinks flower size and number, and turns valuable flower into low-quality seeded product.

To solve this problem, LeafWorks developed a prototype spray that allows farmers to induce pollen sterility should male flowers form. This proprietary RNA-based spray technology will benefit the entire industry. Although difficult to capture, RNA forms naturally and is all around us. It is biodegradable and highly specific to its targetâ??in this case, the male sterility genes in cannabis.

Male sterility, a condition in which plants' male reproductive organs do not produce viable pollen, is a crucial trait in crop breeding programs because it enables the development of hybrid seeds with superior yield, quality and uniformity compared to conventionally bred cultivars. LeafWorksâ?? technology can also be applied to breedersâ?? programs that want to make 100% male-sterile seed lines for hybrid-line production. With this technology, LeafWorks is leading the way to assist

commercial cannabis and hemp breeders to produce hybrid seeds at scale.

Using sprays to alter the sex in cannabis plants is not a new technique. Breeders commonly use chemical sprays to create feminized seeds by activating the male flower genes. However, until now, no products have been able to successfully deactivate these male genes.