

# Hydrosol and the Alchemical Wonder of Distillation

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*Jill Mulvaney is distiller, extractor and blender of aromatics and principal director of Alembics New Zealand. With over 25 years of experience, Jill now teaches and consults on all aspects of plant extraction, aroma, and natural flavour advancing ideas and products that can be utilized across a broad range of industries. Jill leads regular events and workshops that educate people about the exciting possibilities of botanical distillation, and plant extraction. Jill is passionate about the character of plants, the alchemical wonder of distillation, and enjoys sharing her knowledge with others. Jill's formative years, growing up on an isolated farm in Hawkes Bay, her recent teaching partnerships with internationally renowned phytochemists and aromatic distillers in Europe and America, and her experience distilling New Zealand and Australian natives, forms the basis of her deep engagement with the natural world—which remains her greatest inspiration.*



## Introduction

Hydrosol, sometimes known as a hydrolat, is a distilled aromatic water. When I started running distillation workshops 12 years ago, very few people had heard of hydrosol and only a select few understood what floral waters and mists were. Today, at least 50% of my students are familiar with the term 'hydrosol' and attend workshops primarily to learn how to distil and use them.

No discussion of hydrosol can commence without first acknowledging the 'godmothers' of modern hydrosol. Jeanne Rose, now 83 and living in San Francisco, coined the name hydrosol in 1990 principally because it was easy to say and remember. *Hydro*, meaning water, and *Sol*, meaning soluble. (Rose, 1990) Soon after, Ann Harman, Jeanne Rose's student, took the distillation of hydrosols using traditional copper alembic stills, to the next level. Ann is the author of 'Harvest to Hydrosol, a classic text on the art of hydrosol distillation

I have read 'Harvest to Hydrosol' many times and, for those interested in hydrosol or making hydrosol, I strongly recommend reading it as it's suitable for both therapeutic practitioners and beginners alike. A few years ago, Ann Harman invited me to teach alongside her in Washington State and we have been close friends and colleagues ever since. We often work collaboratively on research, testing and experimentation, and our workshops and courses have seeded interest that has spread throughout Europe, the USA, Australia and New Zealand.

Aside from texts written by the two inspirational women above, there are now plenty of excellent blogs, articles and books about hydrosol. But it's important to note that while there is a growing body of current research on hydrosol, published work on the topic remains in its infancy with clinical testing results restricted to invitro and enviro forms. Very few clinical trials on human participants have been conducted, and there is still plenty to learn.

## The revival of an ancient craft

Distilled aromatic waters are certainly not new, even though they have a new name. Hydrosols have been used by humankind for centuries. The oldest alembic still discovered is reportedly 4,000 years old. Archaeologists uncovered it on the island of Cyprus in 2005 at an ancient site dedicated to the production of scented oils and aromatic waters. Many history books claim that distillation first appeared in the eleventh century when the renowned chemist and alchemist Avicenna was based in Persia. Avicenna improved the efficiency of distillation processes by adding a coil feature to existing distillation hardware, rather than inventing distillation from scratch. (Belgiorno, 2016)

As early as the seventeenth century, dedicated still rooms were often essential features in European bourgeois homes—industrious spaces where beer, wine and spirits were routinely made by the 'women of the house' alongside distilled aromatic waters for cosmetic and medicinal purposes. During this period, early versions of hydrosol could also be purchased from chemist shops.

In recent years, small-scale artisan distillation has become immensely popular again thanks to a close-knit, international group of dedicated and passionate distillers and educators and a growing collective desire from women and men to connect in a deeper way with plants and their potential for wellbeing.

## The allure of hydrosol

I am not a practitioner; I am a specialist educator and a maker working exclusively in the field of botanical distillation and extraction and this article is written from that perspective. This article details my understanding of hydrosol based on my own experiences and relationships with plants and distillation. I leave it to you—the experts, to decide on the appropriate therapeutic application. Hydrosol is very different from essential oil. Hydrosol consists primarily of water and small amounts