The amount of advice he provides leads to a small problem with his intention that the book serves as a reference manual: it does not have an index. As daunting a task as it would be to index the vast and varied information that it contains, hopefully future editions of the book do so.

Another noticeable absence has to do with the discussion of acid structure in specific grape varieties. The illustrations depicting the shape of the acid structure are helpful, but Jackson does not provide one for each of the grapes discussed. While it does seem as though the varieties without visual representation perhaps do not warrant it, or that the written description is sufficient for the reader to imagine it, future editions might consider including such illustrations for all varieties discussed.

Dr. Jackson's book does a commendable job of synthesizing an enormous amount of technical information into a strategy for blind tasting. While he states early on that a level of knowledge about grape varieties and wine styles is expected of the reader, his approachable writing style makes the book appealing to the personal enthusiast as well as to those pursuing formal programs for professional reasons. It is a clear, easy, enjoyable read, offering a useful strategy for approaching blind tasting exams with which wine enthusiasts can challenge themselves, familiarly written in an audible mentor's voice that wine students need to hear.

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Reference

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JÉRÔME DOUZELET and GILLES-ERIC SÉRALINI: *Le Goût des Pesticides dans le Vin* [*The Taste of Pesticides in Wine*], Actes Sud, 2018, Arles, 142 pp., ISBN 978-2-330-09300-6 (paperback), €14.80.

This is an interesting and small (144 pages) book by Jérôme Douzelet, a chef and owner of a nice hotel *cum* restaurant, and Gilles-Eric Séralini, a molecular biologist, political advisor, an activist on genetically modified organisms and foods, who got several times in trouble with Monsanto. Still, this did not refrain me from reading the book, which sets out to show that, at blind tastings, people can detect the flavor of pesticides in wine and/or in fresh water in which a certain number of

pesticides were diluted at the same concentration as in wines. And indeed, in blind tastings, subjects seem to be able to identify the flavor of specific "ingredients." The book is written in French, but a summary can be found in the paper by Gilles-Eric Séralini and Jérôme Douzelet (2017).

But I started reading the book with the list of poisons used in the wine "industry." They are listed in alphabetical order with, between brackets, comments on nose and mouth: *Boscalid*, fungicide (taste of chlorine, evokes the smell of burning); *Cyprodinil*, fungicide (burns in the throat, bitterness, astringent); *Fenhexamid*, fungicide (taste of chemical candy, strawberry, chocolate, chlorinated vanilla, cardboard); *Folpel* and *Phthalimid*, fungicide (volatile alcohol, dries the palate, pecks the tip of the tongue, bitterness); *Glyphosate*, weed killer (acidic, burns, blocs detection in the mouth, pecks in the throat); *Iprodione*, fungicide (irritates, burns, tastes of old plastic, bleach, burnt tire, but also some vanilla); *Iprovalicard*, fungicide (astringent, taste of chlorine, or chemical drug, mold, but also taste of nuts); *Polyethoxylated,* tallow amine, used in *Roundup* and other friendly pesticides and weed killers (drains and blocks papillae, rough, but also scents of flowers); *Pyrimethanil*, fungicide (taste of earth, dust, pine, menthol, aspirin, bleach); and, of course, the best was kept for the end, *Roundup*, weed killer (putrefied wood, benzene, dries the mouth and the tongue, burns or pecks).

Most of this tastes good, indeed, and the authors should be congratulated for having taken the pain to describe the characteristics (nose and mouth) of each poison when it is diluted in fresh water (see more later). The authors claim that, to their knowledge, the experiment they ran was "the first where humans [could] identify pesticides by taste."[1]

They met with some 70 other wine professionals and organized a series of blind tastings, each of which consisted of two wines (one bio, the other "normal") from the same (seven) regions, similar terroirs (as long as terroir can be defined), the same grapes, and the same vintages. Before the blind tastings were held, all wines (16 times two, for bio and "normal") had been tested in two professional labs to discover which pesticides and heavy metals they contained. Samples of "water" were prepared by mixing the pesticides found in the wines coming from some 30 vineyards. The glasses of "water" contained the exact same dosages as those found in the wines.

The blind tasting of each couple of wines was organized as follows:

Step 1. Tasting the two wines, and choosing which one was preferred, and why.

Step 2. Detecting pesticides in "water." Each taster was presented with glasses of "water," containing the quantity of one of the pesticides the taster had detected in the wine.

[1] Séralini and Douzelet (2017, p. 6).

Step 3. Tasters had to recognize the pesticides tasted in one or both wines of Step 1. They also had to briefly describe what they noticed, with as much precision as possible.

The results of the 195 blind tests that they ran in 2017 and that are discussed in the book are as follows: (a) in 77 percent of the cases, the bio wine was preferred; (b) 57 percent of the tasters were able to match the taste of pesticides in the "water" and the one in the (usually non-bio) wine, but could not necessarily put a name on the pesticide, with the exception of *Fenhexamid*, however, they fully acknowledged that pesticides changed the taste of natural aromas; and (c) the idea of tasting diluted pesticides in water at the dosage that is found in wines led to sensations that permeate the brain and eventually made it possible to recognize them in wines. According to the authors, some of them taste as artificial strawberries, others as *old beards* of smokers, or beards of *old smokers.*

To my understanding, the main idea was to determine whether wine tasters, once they are slightly trained, can find and distinguish the tastes of these poisons, and the way I understood the book, the message is fivefold:

(a) pesticides change the taste of wines,

(b) it does not take very long for experienced tasters to distinguish that the wines they taste contain pesticides they can discern, and how each pesticide tastes,

(c) professional wine tasters should be trained to detect pesticides,

(d) professional wine critics should perhaps dwell on those additional flavors in the papers they write, and make consumers aware of what they drink, and most importantly,

(e) never provoke or mess with Monsanto.[2]

[2] Seralini had to retract a study on *Roundup* that he published in 2012 in *Food and Chemical Toxicology* 50 (2012), pp. 4221–4231. It is worth reading what happened in an article published by the French newspaper *Le Monde*, and translated into English. See The Seralini Affair—or the secret history of a torpedo, available at https://www.gmwatch.org/en/news/latest-news/17908-the-seralini-affair-or-the-secret-history-of-a-torpedo. In a few words, the editor of the journal in which the paper was published and later retracted, considered that "no definitive conclusions could be drawn from the inconclusive data," but forgot to mention, as he should have, that he was "bound by a consultancy contract to Monsanto." Note, however that, at the time, *Nature* considered the way Seralini behaved after he had made his discovery to be "a public-relations offensive," and several "food safety and regulatory agencies condemned the paper."

Though I used to be quite skeptical about bio wines, after having read the book, my advice would be to go for bio, even if the wine does not taste like the *old beard* of an *old smoker*. In fact, a paper published in this Journal analyzed this question empirically (Delmas, Gergaud, and Lim, 2016) and reached the same conclusion.

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VICTORIA JAMES: *Wine Girl: The Obstacles, Humiliations, and Triumphs of America's Youngest Sommelier*. Ecco, New York, NY, 2020, 336 pp., ISBN: 978-0-06-296167-9 (hardcover), $26.99.

A memoir by someone under 30? Outrageous! What can we learn from someone so young, especially if 30 is the new 18? Quite a bit, actually. In less than a decade, Victoria James has gained important recognition. She became a Certified Sommelier in the Court of Master Sommeliers at age 21. In 2013, she won the Chilean Wine Challenge in New York and was named Best Sommelier of the Sud de France. Two years later, she came in first in the Ruinart Champagne Sommelier Challenge in New York, was named by Forbes as one of the "Top 10 Innovators under 30 in New York City," and earned a place on Zagat's 30 under 30 list. She made Wine Enthusiast's 2016 Top 40 under 40 Tastemakers list and secured the title of *Wine & Spirits Magazine* "2016 Best Sommelier." In 2017, she published her first book, *Drink Pink: A Celebration of Rosé*, which was illustrated by her future husband, Lyle Railsback. Forbes included her on their 2018 30 Under 30 list. That same year, *Food & Wine* called James the Best Sommelier in New York City. She is now a partner and beverage director at Cote in New York City and cofounder of Wine Empowered, a nonprofit that helps women and minorities enter the hospitality industry. But what makes her story so special is what she had to overcome to finally succeed and how she did so.

The prologue describes a disturbing encounter with some obnoxious customers during James' first year as the youngest sommelier in the United States involving a bottle of 2009 Domaine Ramonet Chevalier-Montrachet at which time she was