TIP-MAG example: Opinion piece

Introduction

Opinion pieces present 'bigger picture' ideas/concepts/philosophies/issues that do/will shape the forestry sector i.e. Controlling of alien invasive under the guidance of an FSC® pesticide policy looking to reduce pesticide reliance to zero in certified plantations, OR, Balancing maximising productivity with minimising forestry's environmental and social footprint.

Opinion pieces are not platforms for publishing the results of original research. Instead, they should be conversation starters – challenging the reader to think about where forestry should be headed and how as a sector we plan to get there, as well as the challenges the sector currently faces.

Practical examples, illustrating the points being made, should be used when possible, remembering that opinion pieces are geared towards an interested, non-scientific audience.

New Scientist, a scientific magazine for the interested lay-person, provides the perfect example of how to write scientific opinion pieces for the interested lay-person, presenting cutting-edge science in a way that is accessible and interesting. We want to replicate this approach.

The New Scientist article below, should be a guide to help TIP-Mag opinion piece authors present their research in this style. Comment boxes provide additional instructions.

Article example:

Taken from New Scientist No.3237 - How Our Minds Create Time: The Startling truth about the fourth dimension (6th July 2019)

Article title: Pick of the crop

[Short title – attention grabber]

Sub-heading: Organic fruit and vegetables are often touted as more nutritious. But it is far from clear whether they are more beneficial than conventionally grown foods, writes **James Wong**

[Well worded sub-title/tagline adds to the title by summing up the article's take-home message.]

1) Setting the scene - why is this topic important to: a) you the author and b) to the forestry sector as a whole

It started with a leaflet on my doormat. In big, bold letters, a vegetable deliver scheme proclaimed: "*Did you know? Switching to organic is the same as adding two portions to your 5-a-day.*" Later, at my local health food store, a panel above an organic vegetable display announced that scientific studies had shown this produce was measurably more nutritious that conventional varieties.

This assertion has been echoed by dozens of newspaper headlines, radio news pieces and, of course, campaign group websites. If you are an avid follower of the foodie media, it can seem like exciting new studies come along every few months to add to the organic evidence pile. So, amid the fanfare, let us take a closer look at what the science says, so far.

[Finish this intro section with a statement summarising the point/issue the article wishes to address.]

2) Laying out the main components

[As these pieces will often cover a broad issue, which will inevitably have two (or more) sides, often with multiple components. You need to lay out all arguments/stances/sides first, identifying and if necessary, breaking down the key arguments / sticking points]

If you know where to look in academic journals, it turns out there is indeed lots of food evidence to suggest that some organically grown crops can be higher in certain vitamins and minerals. The tricky thing is, there are also lots of studies that suggest the exact opposite is the case. The more you delve into the literature, the more confused and conflicted the answers to what seems like a simple question appears to be. There is a particularly good reason for this.

Imagine you are a scientist trying to solve this conundrum. You might, for example, buy a range of fruit and vegetables, grown both organically and conventionally, then test these crops for nutrient content and compare the results. After all, this kind of like-for-like comparison most realistically reflects the choices available to the consumers, right? But here is the problem: this is not a like-for-like comparison at all. The crop varieties grown by the organic farmer are often not the same as those grown by conventional ones. As genetics tends to be the principle factor that determines the chemical make-up of a crop, the unique DNA of one variety can result in a very different nutrient profile to another, even if they are grown under the exact same conditions. One head of lettuce might look and taste nearly identical to another variety grown next to it, but their levels of nutrients like vitamin A can vary 20-fold.

The organic and conventional crops on your supermarket shelves will probably differ in other ways too. They are often grown in vastly different climates, even continents, with distinct soil chemistry, irrigation levels, ambient temperatures, and sunlight exposure. All of which have been shown to dramatically affect the nutrient composition of crops. Studies have demonstrated that this can vary in the same plant – with two apples from the same tree having different levels of nutrients – and even two sides of the same fruit.

All this is before we get on to how the storage, transport and display of the crops can affect their nutrient levels. For instance, we know that simply being exposed to the fluorescent lights of supermarkets can result in a crop of spinach being up to twice as rich in folate and vitamin K as those stored in darkness. This is because even once harvested, the fresh fruit and vegetables are still alive and so constantly react to their environment, just like plants in a field do. This creates a hugely complex set of variables that it is almost impossible to control for.

3) Introducing the solution

Given this cat's cradle of evidence, what we really need is a team of number crunchers to trawl through the hundreds of papers out there to see if they can find a meaningful pattern in the data. Fortunately, this mammoth challenge has been taken up not once, but at least three times in published academic literature.

[Introduce the audience to how you propose the issue/problem can be addressed.]

4) Drawing conclusions

[Feel free to pose questions, these often act as signposts for the reader. Reinforcing the key message.]

What did they find? Well, when it comes to vitamins and minerals, they all broadly reported the same thing: no meaningful difference in these essential nutrients across the board between organic and conventional produce. While one of these reviews did report that organically grown crops have, on average, 60 percent higher levels of some antioxidants (a finding that was enthusiastically

repeated in the press, by marketers and even in the university's press release), it also found they were lower in fibre, protein and potentially beneficial dietary nitrates. The latter discovery, perhaps surprisingly, did not attract the same level of coverage.

5) Take home message

There are many reasons why you might wish to go organic. But give the complicated and often contradictory nature of evidence so far, it is impossible to claim that organically grown fruit and vegetables are automatically a nutritionally superior choice without cherry-picking studies (or parts of studies) to support this narrative, while ignoring evidence to the contrary.

[Ultimately, the take-home message should identify what the author feels needs to be done to move forward. This is the single message you want the reader to go home with, so it should be clear, strong, and concise. Preferably it should be contextualised in a way the forester on the ground can clearly identify with and relate to.

Additional information

- References are not required. Remember, this is an opinion piece so you do not need to reference every 'fact' you quote, like you would in a scientific paper. If you do constantly refer to one or two key articles or a piece of forestry legislation do provide a hyperlink which will be incorporated into the article.
- Two pages maximum (+/- 1500 words). Please bear in mind that these articles are for a lay audience who have busy lives. 1500 is the maximum word count, we will happily accept articles between 500 and 1000 words.
- No raw research. Remember this is an opinion piece, covering a 'bigger-picture' issue, and not the publication of a new/re-worked study. So please do not include graphs and tabulated data. If a diagram/photo helps communicate/illustrate how various components/theories/issues come together in this broader context, this can be submitted.