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THE SCIENCE
OF SCIENT

Deloitte
Greenhouse™

SMELL.

It's arguably the most powerful but overlooked sense we have. The human nose is approximately 1M times more sensitive than your eyes and 2M times more sensitive than your ears.¹ Yet scent rarely plays an (intentional) role in the workplace. We think it's time to change that.

Why?

Research²⁻⁸ shows that scent influences cognition, mood, physiology, and behavior. In the Deloitte Greenhouse we draw upon this science to help shift mindsets and accelerate breakthroughs. And scent helps us sustain those effects beyond the Greenhouse experience, as people are more likely to remember something they can smell versus just seeing, touching, or hearing.

Whether you're trying to explore new possibilities, grasp emerging technologies, or maintain calm and centered in the face of disruption, we have a few custom blends that may help you on your way.

So take a deep breath. It's time to stick your nose in your own business.

CALM

Do you reach for carbohydrates when you are stressed?

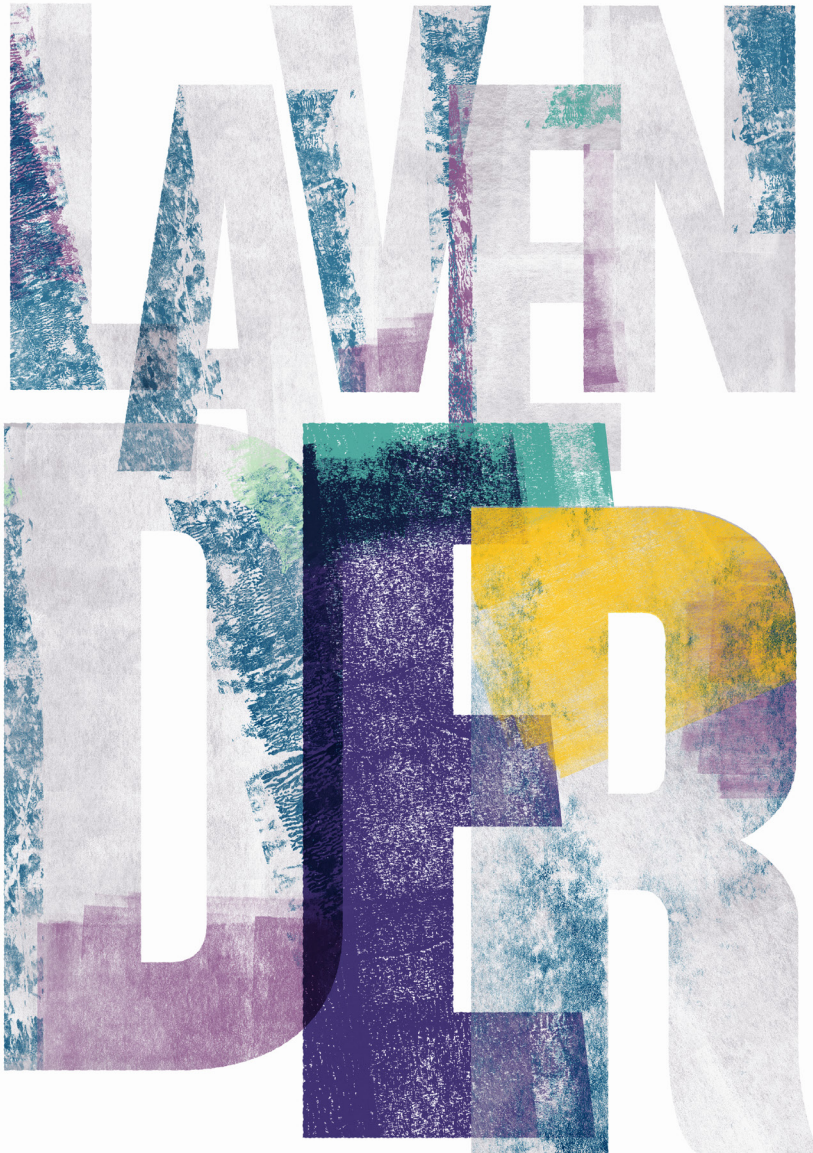
A grapefruit might serve you better.

The grapefruit was originally named “the Forbidden Fruit” by a reverend who discovered it in 18th century Barbados while on a quest to find the origin of the Garden of Eden’s tree of good & evil. Nevertheless, its scent can do you good. Citrus scents come from high concentrations of the chemical limonene, and have been shown to increase calmness and decrease anxiety.²

Research suggests that lemon, orange, and grapefruit scents all impact people’s moods, but grapefruit in particular has the added benefit of suppressing your appetite!³

So the next time you find yourself stress eating, instead of reaching for that doughnut, consider putting a few drops of grapefruit oil on your palm, rub your hands together, and breathe deeply.





REASONING

Tackling a thorny challenge?

Lavender is a powerful herb that has been shown to reduce anxiety,⁴ improve your mood,⁵ and improve your reasoning.⁶

The plant itself was originally cultivated in the Mediterranean and spread throughout Europe by the Romans. Romans were famous for their baths, made more therapeutic by the addition of lavender to the water. The name lavender actually is derived from "lavare," to wash.

History also shows that the Romans were relatively rational, pragmatic warriors. Can lavender get any of the credit?

So next time you have a high profile meeting (or go into battle), you may want to enjoy some lavender beforehand to help you de-stress and think more analytically.

MEMORY

Having trouble remembering a bunch of facts and figures?

The scent of rosemary might be your solution.

For centuries it has been common knowledge that rosemary improves memory. In Shakespeare's play, *Hamlet*, Ophelia hands Hamlet a sprig of rosemary with the following words:

“There's rosemary, that's for remembrance.
Pray you, love, remember.”

Recent scientific studies have shown that not only does rosemary enhance memory⁵ it also produces a feeling of contentment,⁵ increases alertness⁶ and (caution!) reduces analytical thinking.⁶

So next time you need to learn lots of new information, how about placing a rosemary plant on your desk? (But remember to swap it out for lavender when you need to do deep analysis!)





PERFORMANCE

Need an extra boost?

Try experiencing the scent of peppermint.

Athletes exposed to just a tiny amount of peppermint oil were shown to get stronger and run faster after exposure.⁷ The athletes increased their total work by 51% and increased their time to exhaustion by 25%. In other words, they went faster for longer.

And that's not all, studies have also shown that the scent of peppermint increases attention span⁸ and increases alertness.⁸

So next time you know you have to perform at your best, try diffusing some peppermint essential oil into your space or simply drink a cup of peppermint tea.

WHAT DO YOU KNOW ABOUT YOUR NOSE?

- 1** **Smell is more useful than sight or words for recalling these**
 - a** Strong emotions
 - b** Math equations
 - c** Names
- 2** **The impact of smell is most enhanced by this**
 - a** Temperature
 - b** Repeat exposure
 - c** Intensity
- 3** **When does our sense of smell peak?**
 - a** Late teenage years, then slowly declines
 - b** In the summer months
 - c** Our sense of smell is constant throughout our lives
- 4** **What is anosmia?**
 - a** The medical term for deviated septum
 - b** A condition in which someone is born without a nose
 - c** A condition in which someone loses the sense of smell
- 5** **In the US, what is the most profound smell people are triggered by from their childhood**
 - a** Baby powder
 - b** Crayons
 - c** Turkey roasting
- 6** **How do scientists measure the impact of scent on cognition?**
 - a** EEG (Electroencephalograph)
 - b** fMRI (Functional Magnetic Resonance Imaging)
 - c** Sonogram
- 7** **What emotion can humans smell?**
 - a** Fear
 - b** Anger
 - c** Joy
- 8** **What is your favorite in this exhibit?**
 - a** Grapefruit
 - b** Lavender
 - c** Rosemary
 - d** Peppermint

GRAPE
FRUIT

LAVENDER

ROSEMARY

PEPPERMINT

THE RESEARCH

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- ⁴ Lehrner, J. et al "Ambient Odors of Orange and Lavender Reduce Anxiety and Improve Mood in a Dental Office." *Physiology & Behavior* 86 (2005): 92-95.
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- ⁷ Raudenbush, B. et al "The Effects of Odors on Objective and Subjective Measures of Athletic Performance." *International Sports Journal* 6, no. 1 (2002): 14-27.
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