



CULIVISION

A VISION FOR THE FUTURE OF FOOD

Q4 2025 – Pungency

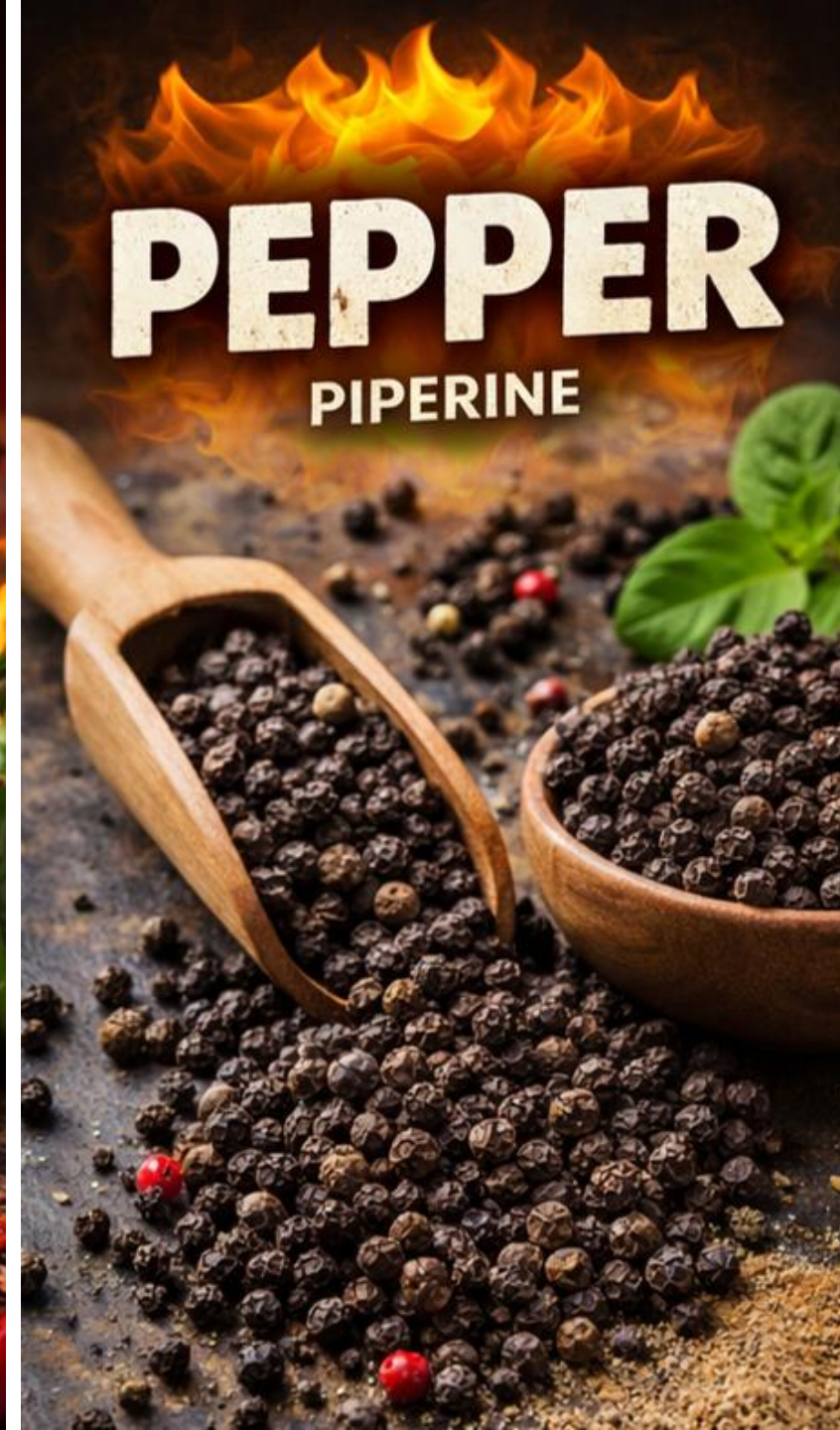
CHILI

CAPSAICIN



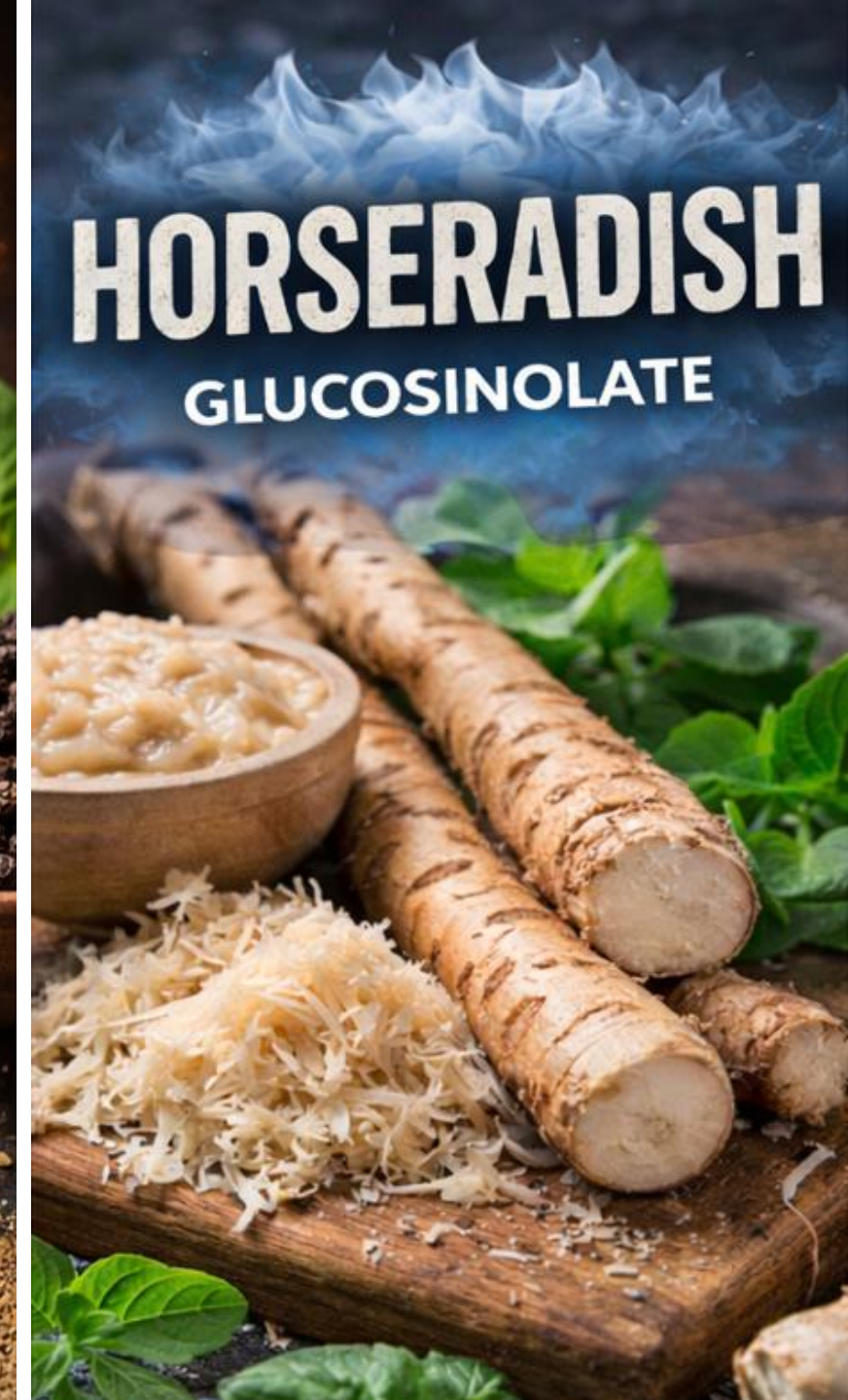
PEPPER

PIPERINE



HORSERADISH

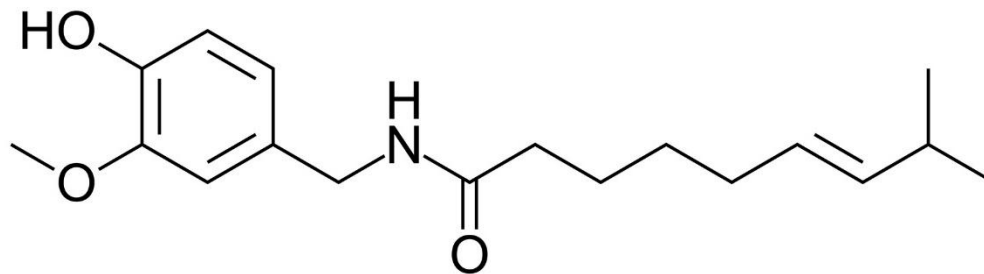
GLUCOSINOLATE

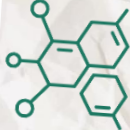


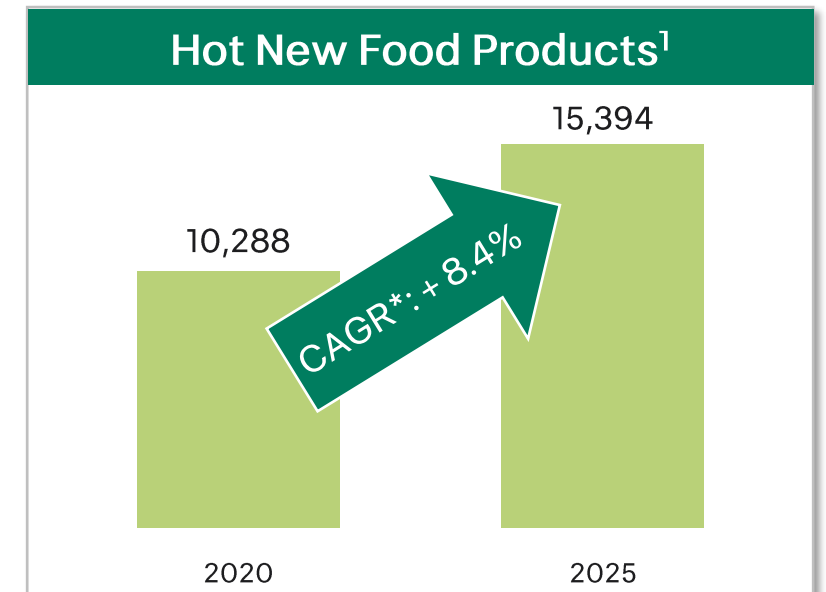
Three Dimensions of Pungency



Capsaicin	Piperine	Glucosinolate
chili, cayenne, jalapeño	pepper (black/white/green)	mustard, horseradish, wasabi
burning, hot	prickling, dry	biting, cooling
slow onset	fast onset	instant
long-lasting	short	fleeting
tongue	throat	nose
fat-soluble → fat/milk reduces heat	limited reduction (water/fat)	deep breathing accelerates dissipation

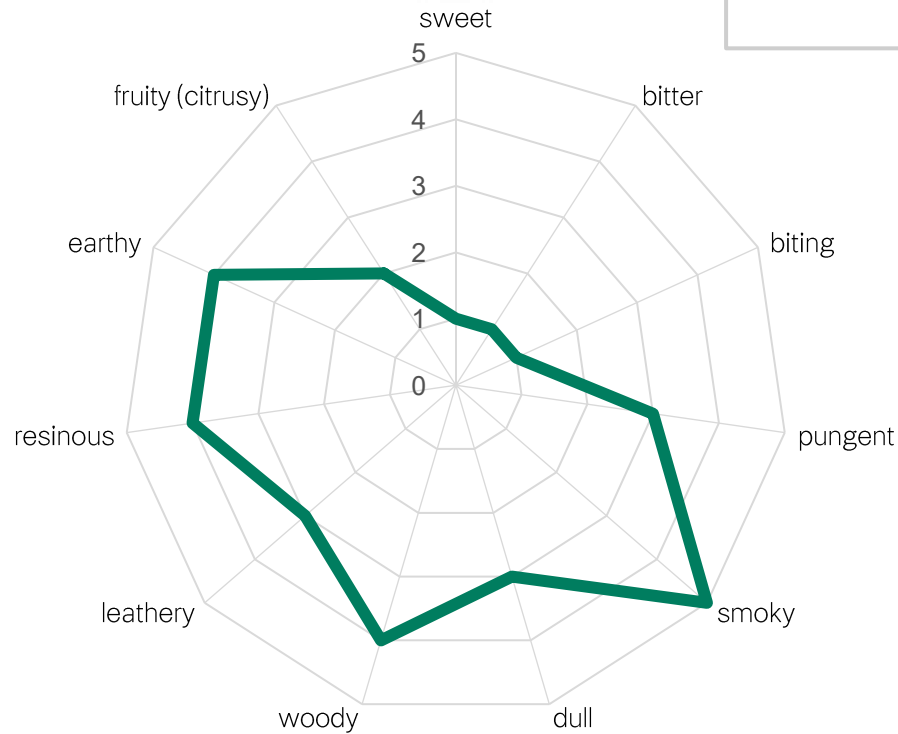
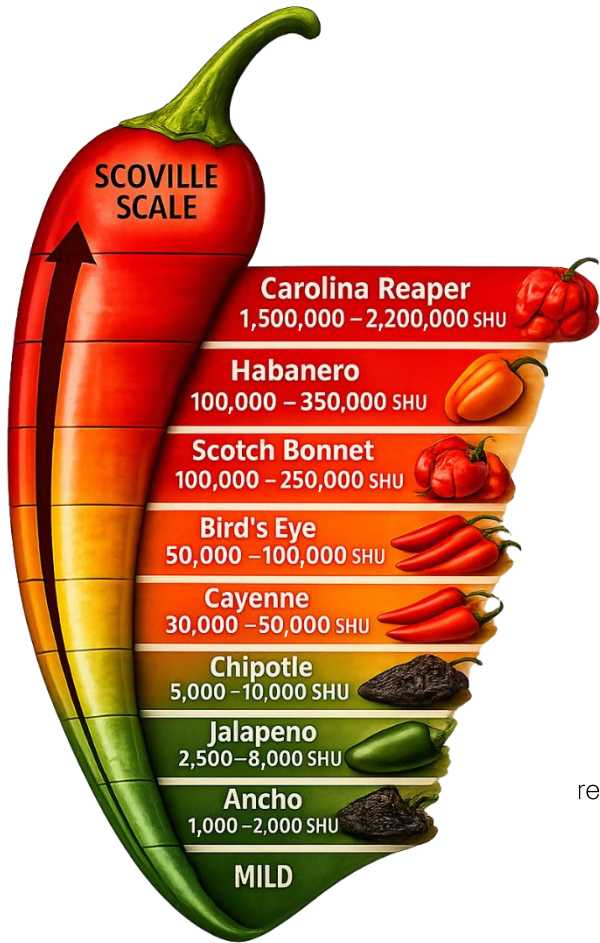



Fat content, protein structure and water activity
 influence how quickly, intensely and long pungency is perceived.

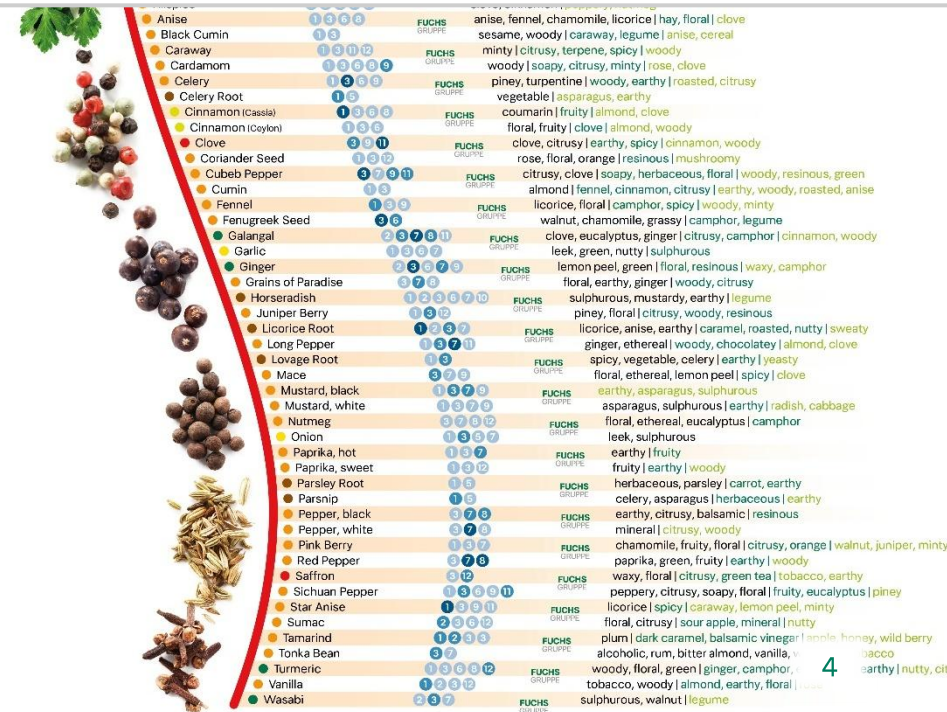


Pungency with System

Pungency meets Sensory



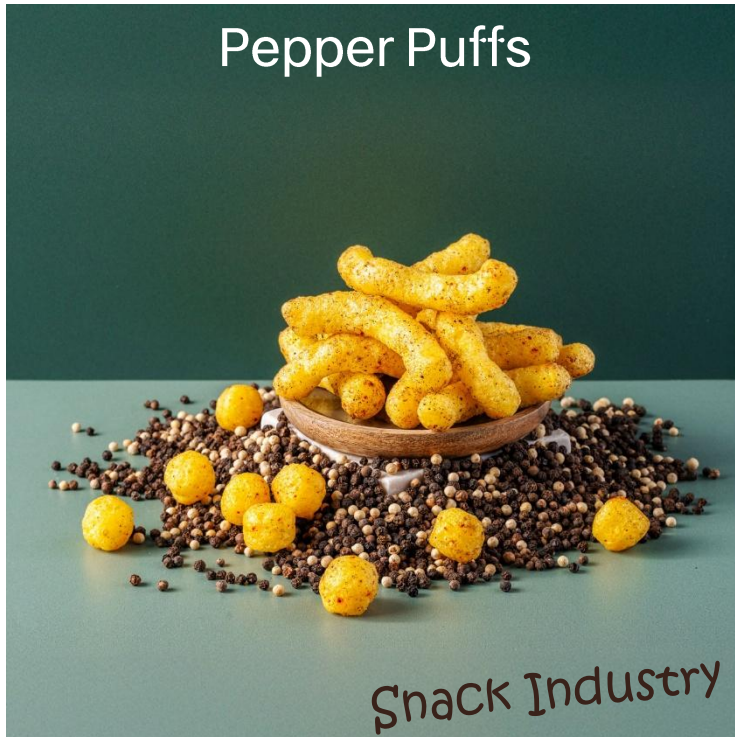
	MOUTHFEEL BASIC TASTE			FLAVOUR NOTE		
	light	medium	strong	light	medium	strong
Black Pepper	bitter	sharp/pungent, warm/hot			resinous	balsamic, earthy, citrusy
Horseradish	bitter, sour, sweet, astringent, metallic, sharp/pungent			legume		earthy, sulphurous, mustardy
Chili		bitter	sharp/pungent, warm/hot	woody	earthy	fruity, green, paprika
White Pepper	bitter, warm/hot		sharp/pungent	woody, citrusy		mineral



Product Ideas

Pungency meets Flavour

Pepper Puffs



Piperine gives the pepper snack a fast-onset, warm, prickling pungency with a biting sensation. Rated at 3.5 out of 5, the intensity is clearly perceptible, while a moderate saltiness enhances its characteristic snack profile.

Chili Chicken Nuggets



Two-stage chili heat: an explosive kick in the coating at first bite, followed by a steady, flavour-rich burn throughout the meat. **Bird's Eye Chili** pushes the pungency uncompromisingly up to 4.5 out of 5.

Horseradish Cream Cheese

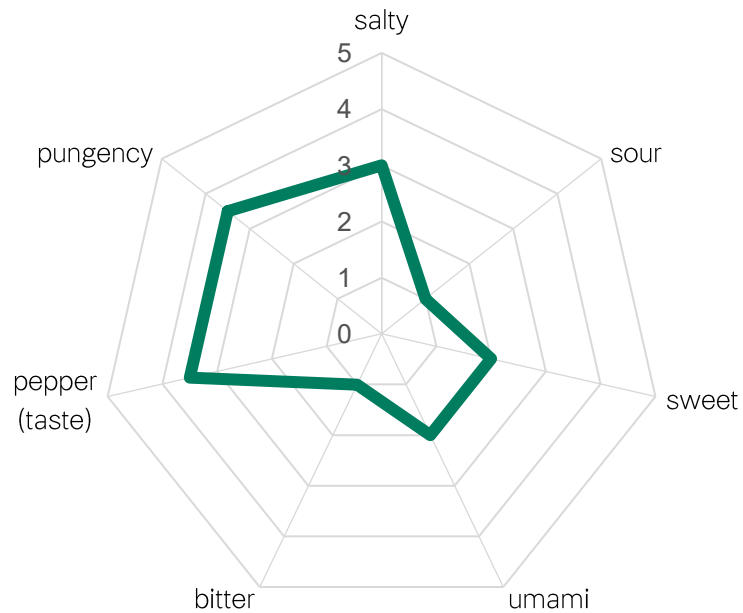


A creamy, mildly tangy base combined with **horseradish pungency**. Deliberately coarse freeze-dried **herbs** and **lemon zest** heighten the sense of freshness and highlight the volatile, nasal pungency.

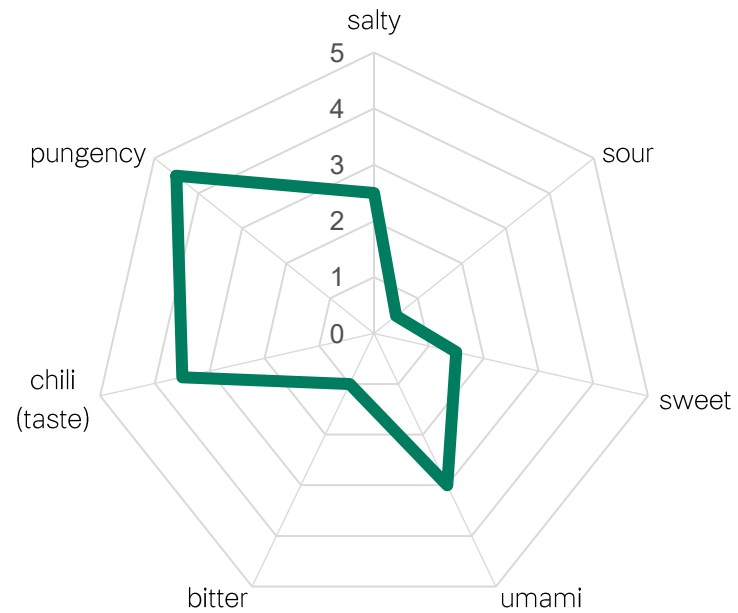
Sensory Profiles



Pepper Puffs



Chili Chicken Nuggets



Horseradish Cream Cheese

