

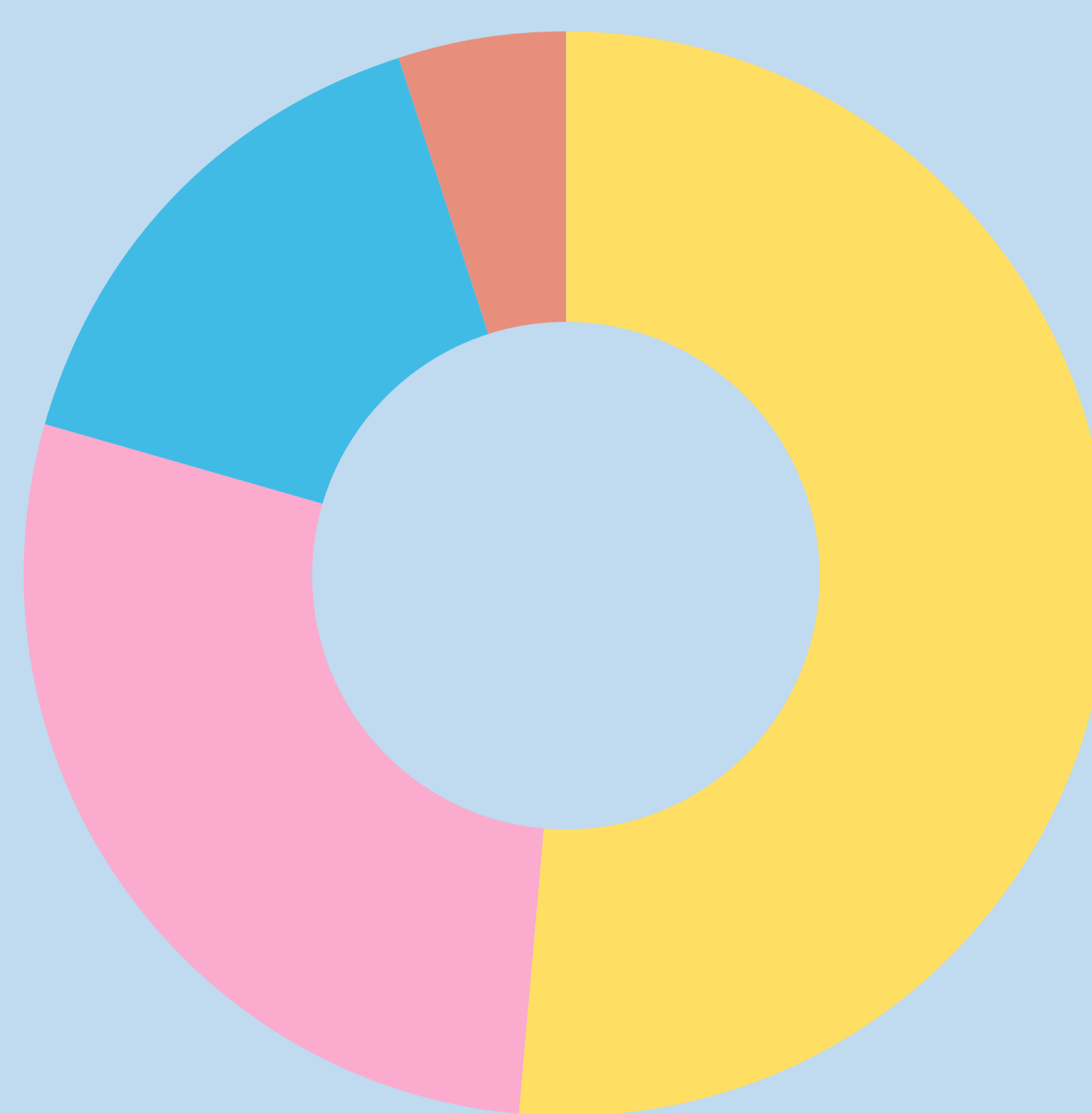
All-rounders in the most diverse sectors

GELATIN AND COLLAGEN PEPTIDES ARE VERSATILE PRODUCTS USED IN DIFFERENT INDUSTRIES.

GELATIN'S MAIN FIELD OF APPLICATION IS THE FOOD INDUSTRY, WHERE IT IS A UNIQUE INGREDIENT.

IT PROVIDES MANY FUNCTIONALITIES AND PROPERTIES AND THEREBY GIVES PRODUCT DEVELOPERS A WIDE RANGE OF OPTIONS.

APPLICATIONS
ESTIMATE 2021



- FOOD: **52%** (267.800 MT*)
- PHARMA: **28%** (145.030 MT*)
- COLLAGEN PEPTIDES: **15%** (80.500 MT*)
- OTHER: **5%** (25.300 MT*)

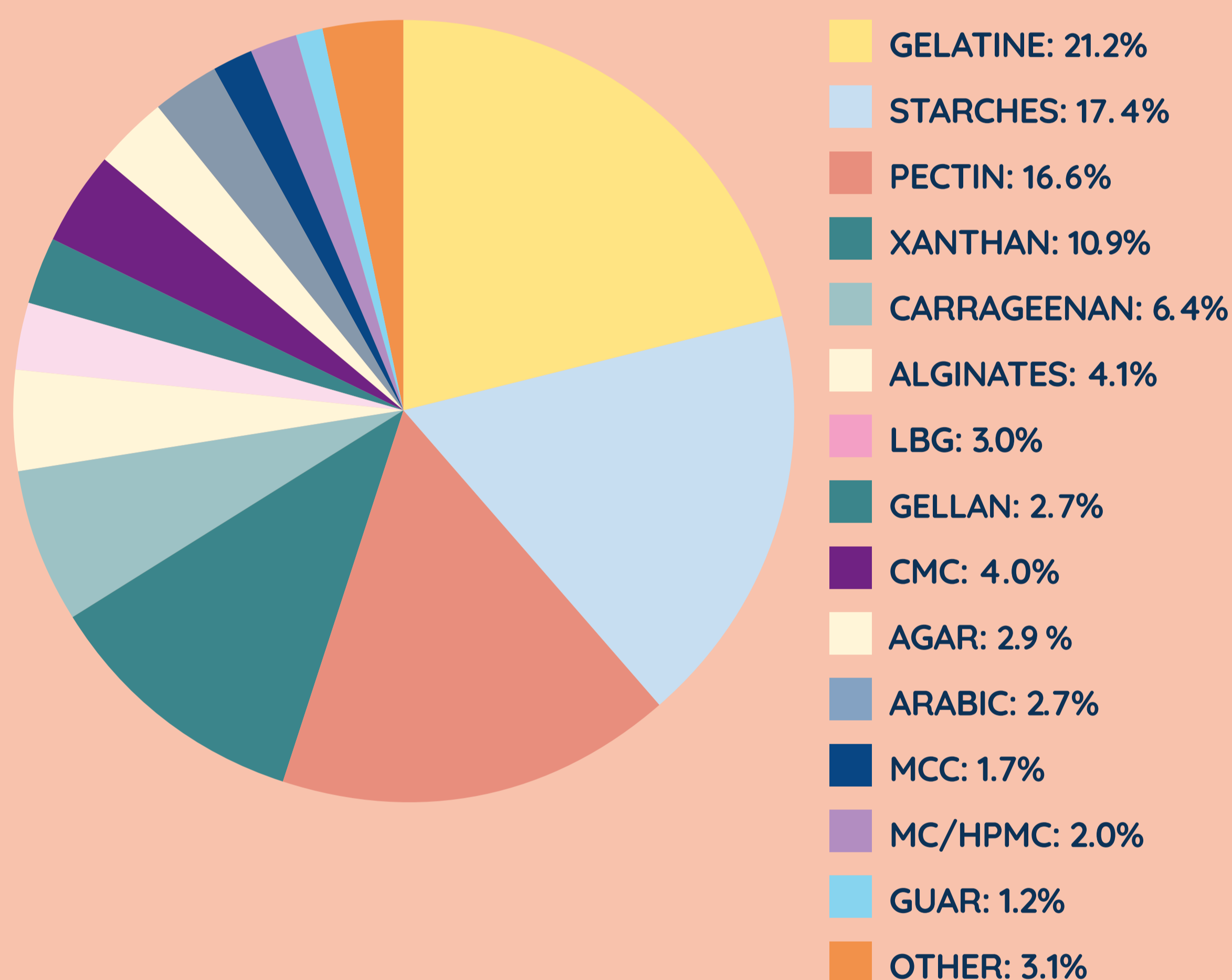
*THESE FIGURES ARE AN ESTIMATE BASED ON DATA COLLECTED FROM GROW ASSOCIATION MEMBERS.

Gelatin's Uniqueness in the Food Industry

Gelatin Is One of the Two Most Commonly Used Hydrocolloids in the World

MARKET SHARE OF THE MOST IMPORTANT HYDROCOLLOIDS FOR FOOD APPLICATIONS

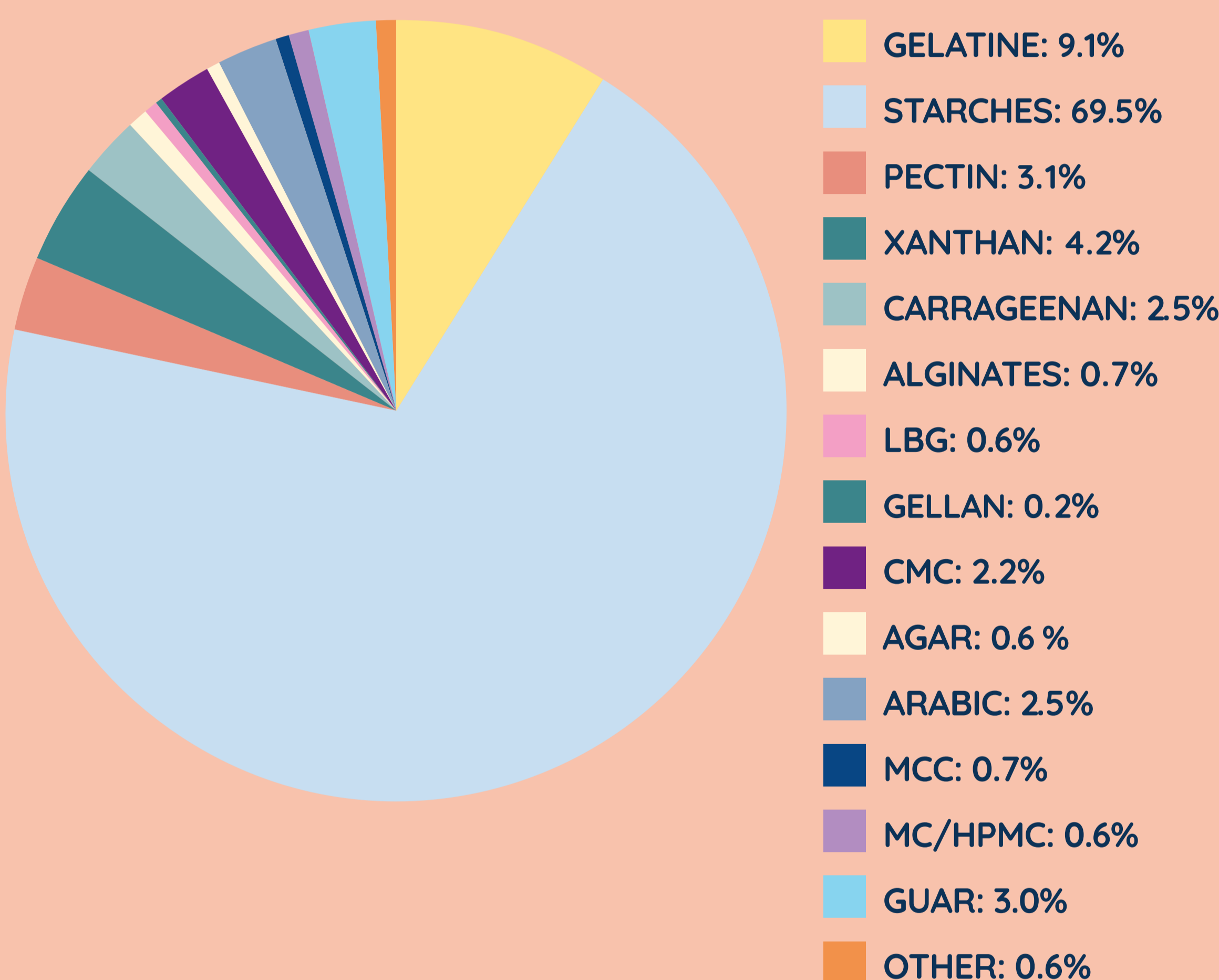
\$ VALUE TOTAL = 8 BILLION



SOURCE: IMR INTERNATIONAL 2021

VOLUME OF THE MOST IMPORTANT HYDROCOLLOIDS FOR FOOD APPLICATIONS

TONNES TOTAL = 2.5 MILLION



SOURCE: IMR INTERNATIONAL 2021

Advantages of Gelatin

NATURAL PRODUCT

- NATURAL SOURCE OF **PROTEIN** AND **ESSENTIAL AMINO ACIDS**
- NATURAL FOOD INGREDIENT** (ISO/TS 19657: 2017)
- SAFE PRODUCT** (GRAS STATUS)
- FREE FROM GMO, **NOT CHEMICALLY MODIFIED** AND HENCE, DOES NOT REQUIRE AN E-NUMBER
- CLEAN LABEL PRODUCT**
- NO ALLERGY LABELLING***



* EXCEPT 1) WHEN FISH DERIVED 2) IN JAPAN

PROPERTIES & FUNCTIONALITIES

- UNIQUE TEXTURE, ELASTICITY AND PURITY**
- ENSURES AN **EXCELLENT MOUTH FEEL AND TASTE EXPERIENCE**
- MELTS AT BODY TEMPERATURE AND IS FULLY DIGESTIBLE**
- OFFERS A **HIGH BIOAVAILABILITY**
- EXTENDS THE **SHELF LIFE** OF PRODUCTS
- CHOLESTEROL, PURINE AND FAT FREE**
- IT HAS THE ABILITY TO **GEL, THICKEN, BIND, FOAM AND FORM LAYERS**
- ITS PARTICLE SIZE CAN BE ADJUSTED TO MEET PRODUCTION NEEDS TO **ACHIEVE EASY SOLUBILITY**



GELATIN'S UNIQUENESS IN A NUTSHELL

GELATIN IS A **UNIQUE INGREDIENT AND MULTIFUNCTIONAL POLYMER** IN THE FOOD AND PHARMACEUTICAL INDUSTRY. THE SUBSTITUTION OF GELATINE IS ONLY POSSIBLE BY A **COMBINATION OF INGREDIENTS (HYDROCOLLOIDS AND FOAMING AGENTS).**

