

## Glossary

<b>ADM</b>	Archer-Daniels-Midland Company.
<b>AMC</b>	AMC Chemicals, a division of Amalgamated Metal Corporation PLC, a wholly-owned subsidiary of Preussag AG.
<b>Antioxidant</b>	A compound that inhibits oxidation and can thus delay the development of off-flavours or discolouration in food.
<b>Arbitrage</b>	The trading of material to take advantage of any temporary price differences between different geographic areas or sectors of the market.
<b>Ascorbic acid</b>	The chemical name for vitamin C.
<b>Aventis</b>	Aventis SA.
<b>AAN</b>	Aventis Animal Nutrition SA.
<b>BASF</b>	BASF Aktiengesellschaft (AG), the ultimate parent company of the BASF group and the entity which purchased <b>Takeda</b> .
<b>Bulk vitamins</b>	Vitamins sold raw or in powdered form, wholesale.
<b>Carrier</b>	An inert material used as a vehicle for an active ingredient.
<b>Compounders</b>	Industrial manufacturers of pre-prepared animal feeds, as distinct from on-farm preparation of animal feeds.
<b>Conversion rate</b>	The proportion of the carbon-source raw material that is converted into the finished product in a <b>fermentation</b> .
<b>DAKS</b>	Di-acetone-ketogulonic acid, an intermediate product in the production of vitamin C.
<b>DC vitamin C</b>	Direct compression vitamin C suitable for making tablets.
<b>Eastman</b>	Eastman Chemical Company.
<b>Ellis &amp; Everard</b>	Ellis & Everard plc.
<b>Ester</b>	A derivative of an organic acid in which one or more acidic hydrogen atoms are replaced by an alkyl, aryl or similar group.
<b>Esterification</b>	The replacement of one or more acidic hydrogen atoms in an organic acid by an alkyl, aryl or similar group.
<b>Fat-soluble vitamins</b>	Vitamins A, D, E and K.
<b>Fermentation</b>	A chemical change to an organic compound caused by the action of a <b>micro-organism</b> .
<b>Food/pharma grade</b>	A grade of vitamin that meets regulatory requirements covering relevant quality and purity parameters, for use within human food and pharmaceutical products.
<b>Forum</b>	Forum Products Limited.
<b>Frank Wright</b>	Frank Wright Limited, a subsidiary of BASF plc ( <b>BASF</b> 's UK subsidiary), which manufactures <b>premixes</b> .

<b>Independent premixers</b>	<b>Premix</b> companies other than <b>BASF</b> 's subsidiary Frank Wright and <b>Roche Vitamins</b> .
<b>Integrators</b>	Companies involved in agricultural production which are vertically integrated into several stages of the full production process. For example, they may do at least some of the following: prepare their own feed, breed their own livestock, raise the animals, slaughter, process, package and distribute products.
<b>KGA</b>	Ketogulonic acid, an intermediate product in the production of vitamin C.
<b>Micro-organism</b>	A microscopic organism, such as a bacterium, a yeast or a fungus.
<b>Merck</b>	Merck KgaA.
<b>Monogastric</b>	Having only one stomach. Animals with multiple stomachs (ruminant animals have four) can synthesize some of their vitamin requirements in these stomachs, unlike monogastric animals.
<b>Pharmacopoeia</b>	An official list of drugs, with directions for their preparation and identification. These requirements vary slightly from one country to another.
<b>Premix</b>	A mixture for animal feed containing <b>vitamins</b> and other nutrients.
<b>Premixers</b>	Manufacturers of <b>premix</b> .
<b>Riboflavin</b>	The chemical name for vitamin B2.
<b>Roche</b>	Roche Holding Limited, the parent company of the Roche group.
<b>Roche Vitamins</b>	Roche Vitamins (UK) Limited, a subsidiary of <b>Roche</b> which manufactures <b>vitamins</b> and <b>premixes</b> .
<b>Reichstein synthesis</b>	The traditional method of synthesizing vitamin C.
<b>Space-time yield</b>	The amount of product made per unit volume per unit time in a <b>fermentation</b> .
<b>Standard vitamin C</b>	Crystalline ascorbic acid, ie vitamin C not of the <b>DC</b> grade; also called straight vitamin C by <b>BASF</b> (see Chapter 5).
<b>Tabletting</b>	The production of vitamin tablets as supplements.
<b>Takeda</b>	The vitamins business of <b>TCI</b> which has been transferred to <b>BASF</b> .
<b>TCI</b>	Takeda Chemical Industries Ltd.
<b>Traceability</b>	The ability to identify the source and nature of all the raw materials, intermediate products, reagents, organisms and catalysts used to produce a vitamin or other product.
<b>Vitamins</b>	Essential organic compounds that must be consumed regularly in small quantities in the diet to avoid deficiency symptoms.
<b>Water-soluble vitamins</b>	B1, B2, B6, B12, C, biotin, calpan, folic acid and niacin.