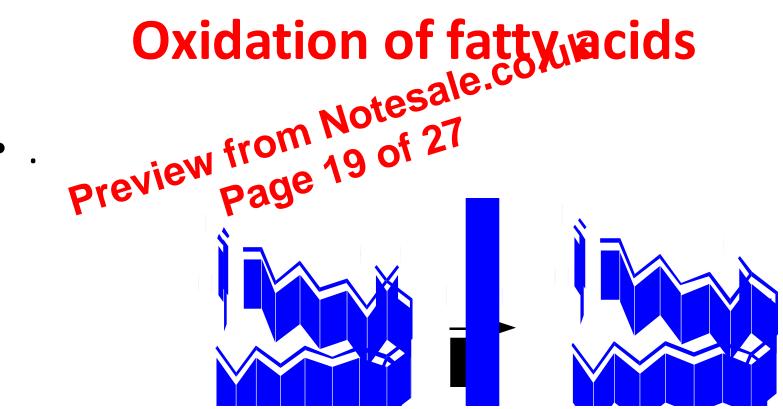
Anti-oxidants and rancidity

• Anti-oxidants staye of eoxygen before it reads with a gy acid radicals.



- Amino acids k

 They are the post building blocks of proteins. They occuren Plants ig erée state.
- The natural α-amino acids have L-configuration as shown by the Fischer projection.
- They condense with each other by peptide bond releasing water to form oligopeptides (with < 10 amino acids) and proteins (> 50 amino acids).
- Collagen is the commonest body protein occuring in ligaments and muscle tissues. 50% of amino acids in collagen are proline and glycine.

Manufacture of amino acids

• Japan is the maio manufacturer of amino acids some of them evoluted age amounts

Glycine 22k tons per year by synthesis.

L-aspartic acid 7k tons per year, enzymatic hydrolysis.

Monosodium L-glutamate 1m tons, fermentation.

L-Lysine HCl salt 250k tons, fermentation.

DL-Methionine 350k tons, synthesis.

L-Phenylalalanine 8k tons, fermentation.

L-Tryptophan 4k tons, fermentation.