

LC Agricultural Science – Key Definitions



Eukaryotic

studyclix.ie
makes exams easier

Have a membrane bound nucleus and membrane bound organelles

Prokaryotic

studyclix.ie
makes exams easier

Do not have a membrane bound nucleus or membrane bound organelles

Osmosis

studyclix.ie
makes exams easier

The movement of a substance from an area of high concentration to an area of low concentration across a selectively permeable membrane

Diffusion

studyclix.ie
makes exams easier

The movement of a substance from an area of high concentration to an area of low concentration along a concentration gradient

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Active Transport

studyclix.ie
makes exams easier

The movement of a substance from an area of low concentration to an area of high concentration against a concentration gradient. It requires ATP (energy)

Monocot

studyclix.ie
makes exams easier

The reproduction of a flowering plant with one cotyledon in the seed or seed leaf. They have narrow leaves with parallel veins and the flowers are arranged in threes or multiple of threes e.g. maize

Dicot

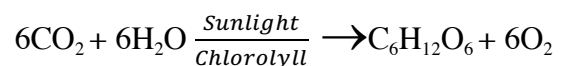
studyclix.ie
makes exams easier

The reproduction of a flowering plant with two cotyledons in the seed or seed leaf. They have broad leaves with netted veins and flowers are arranged in fives or multiple of fives e.g. dandelions

Photosynthesis

studyclix.ie
makes exams easier

The process by which plants use light energy to produce glucose from carbon dioxide and water.



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Transpiration

studyclix.ie
makes exams easier

The loss of water vapour from a plant as it diffuses out through the stomata and into the atmosphere

Translocation

studyclix.ie
makes exams easier

Is the movement of sugars in the phloem in the leaves to other parts of the plant by active transport

Pollination

studyclix.ie
makes exams easier

Is the transfer of pollen from the anther of a stamen to the stigma of the carpel in flowers of the same species

Germination

studyclix.ie
makes exams easier

When the embryo (seed) of a plant begins to grow into a new plant when the conditions (water, oxygen and temperature) are optimal

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Hypogeal

studyclix.ie
makes exams easier

A method of germination in plants when the cotyledon stays below the soil and the plumule sprouts as leaves

Epigeal

studyclix.ie
makes exams easier

A method of germination in plants when the cotyledon rises above the soil and becomes photosynthetic

Tropism

studyclix.ie
makes exams easier

The growth of a plant in response to a stimulus

Phototropism

studyclix.ie
makes exams easier

Plants growth in response to light

Cut dotted horizontal lines. Fold vertical line.





Geotropism

studyclix.ie
makes exams easier

Plants growth in
response to
gravity

Pathogen

studyclix.ie
makes exams easier

A disease causing
microorganism

Autotrophic

studyclix.ie
makes exams easier

An organism which has
the ability to make its
own food

Heterotrophic

studyclix.ie
makes exams easier

An organism which does
not have the ability to
make its own food and
relies on food made by
others



LC Agricultural Science – Key Definitions



Zoonose

studyclix.ie
makes exams easier

A disease which is transferable between animals and humans

Symbiotic Relationship

studyclix.ie
makes exams easier

When two organisms from different species live together and both benefit
e.g. clover and rhizobium

Parasitism

studyclix.ie
makes exams easier

When one organism lives in or on a second organism (the host) from a different species, feeding on it and causing it harm

Endoparasite

studyclix.ie
makes exams easier

An organism that lives in the internal organs of an animal causing it harm
e.g. liverfluke

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Ectoparasite

studyclix.ie
makes exams easier

An external organism that lives on the skin or body of an animal causing it harm e.g. maggots

Hermaphrodite

studyclix.ie
makes exams easier

An organism which has both male and female reproductive organs

Zoospore

studyclix.ie
makes exams easier

A mobile spore with two flagella to support spore movement e.g. Potato blight produce zoospores to reproduce

Infectious Disease

studyclix.ie
makes exams easier

Microorganism causing disease which enter the body of an organism

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Contagious Disease

studyclix.ie
makes exams easier

A disease that is easily transmitted by contact through body fluids or from contaminated clothing and buildings

Notifiable disease

studyclix.ie
makes exams easier

Is a highly infectious and contagious disease that must be reported to the authorities. Animals that may be affected are slaughtered to prevent the spread of the disease. Humans are also at risk as some notifiable diseases are zoonose e.g. TB

Saprophyte

studyclix.ie
makes exams easier

Microorganisms that feed on and break down dead and decaying matter

Thermoregulation

studyclix.ie
makes exams easier

Is the control of temperature inside the body

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Joint

studyclix.ie
makes exams easier

Where two bones meet e.g. synovial joint

Cartilage

studyclix.ie
makes exams easier

Allows friction free movement and prevents chipping of bones

Tendons

studyclix.ie
makes exams easier

Connects muscle to bone e.g. Achilles tendon connects calf muscles to the heel bone

Ligament

studyclix.ie
makes exams easier

Connect bone to bone

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Digestion

studyclix.ie
makes exams easier

Is the breakdown of food either chemically or physically, into smaller molecules

Incisor

studyclix.ie
makes exams easier

Is a chisel shaped tooth which is used for cutting and biting food

Canine

studyclix.ie
makes exams easier

Sharp tooth used for tearing food

Premolar

studyclix.ie
makes exams easier

Flat tooth which is used for grinding food



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Molar

studyclix.ie
makes exams easier

Flat tooth used for crushing food

Peristalsis

studyclix.ie
makes exams easier

The contractions of muscles that move food along the alimentary canal

Ruminant Animal

studyclix.ie
makes exams easier

An animal with a four chambered stomach which is adapted to breakdown cellulose

Selective Reabsorption

studyclix.ie
makes exams easier

When the body reabsorbs useful substances that are returned to the body by active transport

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Venule

studyclix.ie
makes exams easier

A small branch from
a vein

Arteriole

studyclix.ie
makes exams easier

A small branch from
an artery

Immunity

studyclix.ie
makes exams easier

Is the ability of the
body to resist entry of
pathogens or the
effects of their toxins

Active Immunity

studyclix.ie
makes exams easier

Is the stimulation of
antibody production when
exposed to a particular
antigen naturally or
artificially (vaccine)

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Passive Immunity

studyclix.ie
makes exams easier

Is the stimulation of antibody production from an external source e.g. Antibodies in colostrum

Pituitary Gland

studyclix.ie
makes exams easier

An endocrine gland that is located at the base of the brain and controls the secretion of hormones e.g. Oxytocin and Prolactin

Hormone

studyclix.ie
makes exams easier

Chemical messengers that are produced by endocrine glands. They are protein in nature and are transported in the blood

Freemartin Condition

studyclix.ie
makes exams easier

Occurs in mixed sex twin calves during their growth in the uterus. Hormones from the male calf passes to the female twin causing the female to become masculinised and infertile

Cut dotted horizontal lines. Fold vertical line.





Central Nervous System

studyclix.ie
makes exams easier

Consists of the brain and spinal cord

Peripheral Nervous System

studyclix.ie
makes exams easier

All the body nerves linked to the central nervous system

Asexual Reproduction

studyclix.ie
makes exams easier

Reproduction involving only one parent. The offspring is identical to the parent genetically

Sexual Reproduction

studyclix.ie
makes exams easier

Reproduction involving two parent and their gametes. The female produces an egg and the male sperm. The offspring inherits half of each parents genes



LC Agricultural Science – Key Definitions



Gestation

studyclix.ie
makes exams easier

Also known as pregnancy, it is the period of time from conception to birth

Oestrous

studyclix.ie
makes exams easier

Also known as 'in heat'. It is the time when a female animal is ovulating, releasing eggs

Polyoestrous

studyclix.ie
makes exams easier

When the animals oestrus cycles occur throughout the year

Rumen

studyclix.ie
makes exams easier

The first chamber of the ruminant stomach which contains microorganisms that anaerobically break down cellulose

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Reticulum

studyclix.ie
makes exams easier

The second chamber of the ruminant stomach which regurgitates partially digested material back into the mouth to be chewed further

Omasum

studyclix.ie
makes exams easier

The third chamber of the ruminant stomach that squeezes food and reabsorbs water and liquids

Abomasum

studyclix.ie
makes exams easier

The third chamber of the ruminant stomach which secretes gastric juices to break down protein and aid in the final stage of digestion

Chromosome

studyclix.ie
makes exams easier

A thread like structure made up of DNA and proteins containing genes, found in the nucleus

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Mitosis

studyclix.ie
makes exams easier

Cell division where two cells are produced each with the same number of chromosomes

Meiosis

studyclix.ie
makes exams easier

Cell division which produces 4 cells. Each cell has half the number of chromosomes as the parent cell

Alleles

studyclix.ie
makes exams easier

Alternative form of a gene e.g. T and t

Dominant

studyclix.ie
makes exams easier

The gene that is expressed in the phenotype of the heterozygous condition

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Recessive

studyclix.ie
makes exams easier

The gene that is masked in the phenotype by the dominant allele e.g. Tt, t is recessive

Genes

studyclix.ie
makes exams easier

Unit of heredity made up of DNA that codes for one trait

Gamete

studyclix.ie
makes exams easier

A haploid sex cell (egg and sperm) capable of fusion

Fertilisation

studyclix.ie
makes exams easier

The fusion of two haploid gametes to form a diploid zygote

Cut dotted horizontal lines. Fold vertical line.





Genotype

studyclix.ie
makes exams easier

The genetic
makeup of an
organism

Heterozygous

studyclix.ie
makes exams easier

When two different
alleles of a gene
control the same trait
e.g. Tt

Homozygous

studyclix.ie
makes exams easier

When two identical
alleles control the
same trait e.g. TT

Phenotype

studyclix.ie
makes exams easier

The physical
appearance of an
organism



LC Agricultural Science – Key Definitions



Incomplete Dominance

studyclix.ie
makes exams easier

When neither allele is completely expressed in the phenotype of the heterozygous condition e.g. Roan breed of cattle

Mendel's Law of Segregation

studyclix.ie
makes exams easier

Traits are controlled by a pair of factors. Only one of any pair can enter a gamete

Mendel's Law of Assortment

studyclix.ie
makes exams easier

When gametes are formed, either a pair of alleles can enter a gamete with either of another pair

Sex Chromosomes

studyclix.ie
makes exams easier

A pair of chromosomes that determine the sex of the organism e.g. XX = cows or XY = bulls

Cut dotted horizontal lines. Fold vertical line.





Sex Linkage

studyclix.ie
makes exams easier

When genes are carried on the sex chromosomes (X or Y) e.g. white eyes in fruit flies

Sexed Semen

studyclix.ie
makes exams easier

Dividing bulls semen into two groups of sperm, X chromosomes sperm and Y chromosomes sperm using a flow cytometer to produced heifers on a dairy herd

Selective Breeding

studyclix.ie
makes exams easier

Breeding animals or plants with desirable traits to ensure these desirable traits are visible in their offspring

Inbreeding

studyclix.ie
makes exams easier

Is the breeding of closely related animals or plants



LC Agricultural Science – Key Definitions



Crossbreeding

studyclix.ie
makes exams easier

Is the breeding of plants or animals from two different species or breeds

Hybrid Vigour

studyclix.ie
makes exams easier

The increased productivity of offspring as a result of genetically different parents

Performance Testing

studyclix.ie
makes exams easier

Comparing records of an animals food conversion ratio and weight gain with the records of similar animals under the same conditions of housing and feed

Progeny Testing

studyclix.ie
makes exams easier

Comparing records of the performance of an animals offspring with the records of similar animals offspring under the same conditions of housing and feed

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Economic Breeding Index (EBI)

studyclix.ie
makes exams easier

Is a single figure profit index given in euro of profit per lactation for an animals progeny compared to the average dairy cow

Genetic Modification

studyclix.ie
makes exams easier

The insertion of genes into chromosomes of organisms of a different species to give valuable traits e.g. crops being resistant to herbicides

Polyploidy

studyclix.ie
makes exams easier

When there are more than two copies of each chromosome in a cell (4N) e.g. wheat

Mutation

studyclix.ie
makes exams easier

A change in the DNA that alters the genetic code

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Mutagen

studyclix.ie
makes exams easier

Agents that
promote mutations
e.g. carcinogens

Artificial Insemination (AI)

studyclix.ie
makes exams easier

Is the collecting of semen
from bulls, diluting it and
placing it in AI straws for
insemination. It gives rise to
superior offspring

Back cross

studyclix.ie
makes exams easier

Breeding a cross-bred
offspring with a pure-
breeding recessive plant or
animal to identify the
genotype of the parent

Clone

studyclix.ie
makes exams easier

Is a group of cells or an
organism that are
genetically identical to
each other

Cut dotted horizontal lines. Fold vertical line.





Continuous Variation

studyclix.ie
makes exams easier

Characteristics controlled by a number of genes to give a range of phenotypes

Micro propagation

studyclix.ie
makes exams easier

Is the practise of rapidly multiplying stock plant material to produce numbers of progeny that are genetically identical

F1 Hybrids

studyclix.ie
makes exams easier

The progeny of two purebred parents who are genetically different

Embryo Transfer

studyclix.ie
makes exams easier

Is the fertilisation of eggs and collecting of the embryos from a donor animal and implanting these embryos into a surrogate mother to produce top class animals



LC Agricultural Science – Key Definitions



Leaching

studyclix.ie
makes exams easier

Is the loss of nutrients and minerals from the soil due to heavy rainfall

Podsolization

studyclix.ie
makes exams easier

Is the formation of an iron pan, which is impermeable to water on the B horizon of soil. It occurs in acidic conditions when the minerals become leached from horizon A to horizon B. It gives the soil a bleached colour

Soil Profile

studyclix.ie
makes exams easier

A vertical section through soil showing all the horizons from ground level to bedrock

Gleisation

studyclix.ie
makes exams easier

Is when iron is reduced in soil and gathers in the B horizon due to waterlogged conditions. The soil is mottled in appearance

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Soil Texture

studyclix.ie
makes exams easier

Is the measure of the different sized particles (sand, silt and clay) within a given soil sample

Loam Soil

studyclix.ie
makes exams easier

A soil containing equal quantities of sand, silt and clay

Saturation Point (Water Logged)

studyclix.ie
makes exams easier

When the soil is completely occupied with water but there is no water on the surface of the soil

Capillary Water

studyclix.ie
makes exams easier

The water kept in small spaces/pores in the soil available to plants

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Hygroscopic Water

studyclix.ie
makes exams easier

Water stuck to the surface of soil which is not available to plants

Gravitational Water

studyclix.ie
makes exams easier

Is water from rainfall that is drawn down into the soil to fill the air pores/spaces in the soil

Field Capacity

studyclix.ie
makes exams easier

Is the amount of water left in the soil after the drainage of gravitational water

Permanent Wilting Point

studyclix.ie
makes exams easier

When a plant can no longer take up capillary water from the soil

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Poaching

studyclix.ie
makes exams easier

When animals or machinery compact wet soil and destroy the soil structure

Humification

studyclix.ie
makes exams easier

Is the conversion of the soils organic matter into humus

Macronutrients

studyclix.ie
makes exams easier

Are nutrients which are used in large amounts by plants and animals e.g. plants need nitrogen for ATP, amino acids and chlorophyll

Micronutrients

studyclix.ie
makes exams easier

Are nutrients which are used in small amounts by plants and animals e.g. Iron



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Peds

studyclix.ie
makes exams easier

Is formed when sand, silt and clay stick together into larger separate parts

Colloids

studyclix.ie
makes exams easier

When particles stick together using cementing agents and clay

Flocculation

studyclix.ie
makes exams easier

When soil particles stick together to create bigger structures called floccules

Topography

studyclix.ie
makes exams easier

Is the landscape shape, the lie of the land

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Fertiliser

studyclix.ie
makes exams easier

Are manufactured materials that are inorganic in nature and contain elements that promote plant growth

Manure

studyclix.ie
makes exams easier

Animal and plant waste which is organic in nature. It can be used as an organic fertiliser

Eutrophication

studyclix.ie
makes exams easier

When nutrients run off from the land into a lake/river which causes the dense growth of plants in the water and the death of fish and other organisms

Botanical Composition

studyclix.ie
makes exams easier

When there is a large variety of grasses, plants and other vegetation present

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Stocking rate

studyclix.ie
makes exams easier

Is the number of animals stocked on an area of land

Production Levels

studyclix.ie
makes exams easier

Is the amount of herbage produced by a pasture

Palatability

studyclix.ie
makes exams easier

Is the taste of the grass, animals like and will only eat palatable grass

Productivity

studyclix.ie
makes exams easier

Is the ability of the grass to produced large quantities of herbage. High productivity will allow for higher stocking rates

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Digestibility

studyclix.ie
makes exams easier

Is the amount of food that can be assimilated and used in the body comparison to the amount digested

Dry Matter

studyclix.ie
makes exams easier

Is the matter that remains in a food sample once all the water has been removed

Dry Matter Digestibility (DMD)

studyclix.ie
makes exams easier

The percentage of dry matter that an animal can digest and obtain energy from

Dry Matter Intake

studyclix.ie
makes exams easier

Is the amount of food consumed by an animal not including its water content

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Tramlines

studyclix.ie
makes exams easier

Are parallel unsown tracks in a field of cereal that allows farmers to access the crop

Heading Out

studyclix.ie
makes exams easier

The time when the ear emerges on the grass plant

Livestock Units (LU)

studyclix.ie
makes exams easier

Is a measurement used to determine how much herbage is needed on a farm. 1 LU = 12 tonnes

Zero Grazing

studyclix.ie
makes exams easier

Is a method of grazing where animals are housed all year round and grass is cut and brought to them

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Paddock Grazing

studyclix.ie
makes exams easier

Is a method of grazing where 20/30 paddocks of equal size are made using an electric fence. Livestock moves to a new paddock each day for fresh grass.

The grazed paddock is topped and fertilised and livestock will not return to this paddock again for 21 days

Strip Grazing

studyclix.ie
makes exams easier

Is a method of grazing where a movable electric fence divides land into strips. Livestock move to a fresh strip every day. The grazed strip is topped and fertilised and livestock will not return to this strip again for 21 days

Set Stocking

studyclix.ie
makes exams easier

Is a method of grazing where livestock are given access to all grazing land. It is a low cost and a low labour grazing method but the grassland is not optimised

Block Grazing

studyclix.ie
makes exams easier

Is a method of grazing where a large field is divided into smaller blocks. Each block is grazed for one week and the grazed block is topped and fertilised. Livestock will not return to this block again for 21 days

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Creeping Grazing

studyclix.ie
makes exams easier

Is a method of grazing where a gate or fence allows the young stock have access to fresh grass, free from disease. The creep gate allows the young stock to return to their mother to suckle at anytime

Leader-Follower System

studyclix.ie
makes exams easier

Is a method of grazing where young stock graze ahead of the older stock. This allows the younger stock access to the freshest grass, free from disease

Mixed Grazing

studyclix.ie
makes exams easier

Is a method of grazing where cattle and sheep graze together. This increased the production levels by 10 – 15 % and increases tillering

Topping

studyclix.ie
makes exams easier

Is mowing grass to 5-7cm after it has been grazed to encourage tillering and act as a weed control

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Tillering

studyclix.ie
makes exams easier

Is the ability of grass to produce side shoots from the base of the plant

Silage

studyclix.ie
makes exams easier

Is the fermentation of sugars in the grass that produces an acid and lowers the pH of the grass preventing bacterial activity which will preserve the grass

Ensiling

studyclix.ie
makes exams easier

Is the preservation of silage by storing the grass in a pit, silo or clamp

Haylage

studyclix.ie
makes exams easier

Is when grass is cut like hay but is baled when the moisture content is higher than hay's as it is not allowed to completely dry

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Hay

studyclix.ie
makes exams easier

Is the dehydration of grass to remove water and prevent microbial activity

Biochemical Oxygen Demand (B.O.D)

studyclix.ie
makes exams easier

Is the amount of dissolved oxygen needed to break down organic matter in 1 litre of water

Crop Rotation

studyclix.ie
makes exams easier

Is a system of tillage cultivation where crops are grown in a sequence ensuring a different crop is grown in that field each year to prevent the depletion of soil nutrients, the build-up of pests and diseases

Fungicide

studyclix.ie
makes exams easier

Is a chemical used in crop production to kill or prevent the growth of fungi

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Pesticide

studyclix.ie
makes exams easier

Is a chemical used in to kill pests e.g. rodents

Herbicide

studyclix.ie
makes exams easier

Is a chemical used in crop production to kill or prevent the growth of plants e.g. weeds

Biological/Indirect Control

studyclix.ie
makes exams easier

Is the control of pests, weeds or disease using predator or parasite of that organism e.g. Introducing ladybird's to get rid of aphid's

Stubble Cleaning

studyclix.ie
makes exams easier

When crops have been harvested, ploughing and harrowing the land again

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Lodging

studyclix.ie
makes exams easier

When cereal crops bend over making it impossible to harvest, reducing the overall yield

Catch Crops

studyclix.ie
makes exams easier

Is a crop grown between two main crops

Permanent Wilting Point

studyclix.ie
makes exams easier

Is when a plant can no longer remove capillary water from the soil

Food Conversion Ratio (FCR)

studyclix.ie
makes exams easier

Is a measure of an animal's efficiency of converting a mass of food into body mass or live weight. It is expressed as the ratio of food consumed in comparison to the live weight gained

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Maintenance Diet

studyclix.ie
makes exams easier

The amount of feed that allows an animal to maintain a constant body weight

Production Diet

studyclix.ie
makes exams easier

Is the extra amount of food needed to produce 1 kg of live weight gain, 1 litre of milk, 1 kg of wool or to produce a lamb or calf

Conformation

studyclix.ie
makes exams easier

Is the shape and width of an animal and the distribution of fat and muscle on its body

Body Condition Scoring (BCS)

studyclix.ie
makes exams easier

Is the degree of lean to fat ratio on the body

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Colostrum

studyclix.ie
makes exams easier

Is the first milk produced by a mammal after giving birth. It contains antibodies and nutrients which are essential for the new born to survive

Metabolisable Energy

studyclix.ie
makes exams easier

Is the conversion of energy from food to Live Weight Gain (LWG) measured in MU/kg

Gilt

studyclix.ie
makes exams easier

A female pig that has not had a litter of Bonham's yet

Cast/Draft Ewe

studyclix.ie
makes exams easier

A ewe whose fertility has declined due to harsh mountainous conditions. When these ewes are put on an improved plane of nutrition their fertility improves and they can produce lambs

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Terminal Sire

studyclix.ie
makes exams easier

A ram that is used to produce lambs with high growth rates and good carcase quality

Flushing

studyclix.ie
makes exams easier

Is when ewes are moved from a low plane of nutrition to a higher plane of nutrition prior to mating

Steaming Up

studyclix.ie
makes exams easier

Increasing concentrates being fed to the sheep in the last 6-8 weeks of gestation to ensure a healthy lamb, more colostrum and prevent twin lamb disease

Ram Effect

studyclix.ie
makes exams easier

When a ram is suddenly introduced into a flock of ewes which can influence the ewes to come into oestrous as rams produce pheromones

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Sponging

studyclix.ie
makes exams easier

Is in the insertion of progesterone-impregnated sponges into ewe's vagina to synchronise breeding

Breeding out of season

studyclix.ie
makes exams easier

Producing lambs for the Easter market. Ewes are sponged, once sponges are removed the ewes are given a PMSG injection and mated in July

Lactation Curve

studyclix.ie
makes exams easier

Is a graph that plots the milk production of a dairy cow from calving to drying off

Peak Yield

studyclix.ie
makes exams easier

Is when a dairy cow is producing the highest volume of milk. It is usually 5 to 6 weeks after calving

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Persistence

studyclix.ie
makes exams easier

Is the rate on the lactation curve, at which the dairy cow's milk yield declines

Store Period

studyclix.ie
makes exams easier

Is a period of restricted feeding, when an animal goes from a high plane of nutrition to a low plane of nutrition during winter months and as a result there is a decrease in the animals live weight gain

Compensatory Growth

studyclix.ie
makes exams easier

Is an increase in the growth rate of an animal after a period of restricted feed

Calving Interval

studyclix.ie
makes exams easier

Is the time between a cow giving birth to a calf and a consecutive calf

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Heterosis

studyclix.ie
makes exams easier

The increased performance of crossbred animals above the mid-parent mean of both parents

Habitat

studyclix.ie
makes exams easier

Part of an ecosystem where plants and animals live

Abiotic Factors

studyclix.ie
makes exams easier

Non-living features in the habitat e.g. aspect

Biotic Factors

studyclix.ie
makes exams easier

Living features in the habitat e.g. food

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Biodiversity

studyclix.ie
makes exams easier

Is all the living organisms in an ecosystem

Carnivore

studyclix.ie
makes exams easier

An organism that feeds on other animals e.g. Fox feeds on sheep

Omnivore

studyclix.ie
makes exams easier

An organism that feeds on both plants and animals e.g. Humans

Herbivore

studyclix.ie
makes exams easier

An organism that feeds on plants e.g. cows, sheep and horses



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Edaphic Factors

studyclix.ie
makes exams easier

Factors relating to soil, the soils temperature, drainage, nutrients, pH

Metamorphosis

studyclix.ie
makes exams easier

Is an insects life cycle of development e.g. Butterflies undergo complete metamorphosis

Egg → Larva → Pupa → Adult

Incomplete Metamorphosis

studyclix.ie
makes exams easier

Is an insects life cycle of development where the immature insect (nymph) sheds their exoskeleton and undergoes moults at each stage of development e.g. Aphids undergo incomplete metamorphosis

Egg → Nymph → Adult

Pollution

studyclix.ie
makes exams easier

The addition of anything harmful to the environment e.g. gases from burning fossil fuels



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Volatilisation

studyclix.ie
makes exams easier

Is the conversion of ammonium ions to ammonia gas, which is then lost to the atmosphere

Milk Pricing System

studyclix.ie
makes exams easier

Equation : $A + B - C$

A: kg of protein

B: kg of fat

C: Volume of water

Antibody

studyclix.ie
makes exams easier

Is a protein produced by the lymphocytes in response to an antigen

Antigen

studyclix.ie
makes exams easier

A foreign object which stimulates the production of antibodies

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Ruminant
Dentition
(cow/sheep)

studyclix.ie
makes exams easier

I: $\frac{0}{3}$ C: $\frac{0}{1}$ P: $\frac{3}{3}$ M: $\frac{3}{3}$

Pig Dentition

studyclix.ie
makes exams easier

I: $\frac{3}{3}$ C: $\frac{1}{1}$ P: $\frac{4}{4}$ M: $\frac{3}{3}$

Aerobic
Respiration

studyclix.ie
makes exams easier

Is release of energy in the
presence of oxygen
Glucose + Oxygen → Carbon Dioxide
+ Water + Energy

Anaerobic
Respiration

studyclix.ie
makes exams easier

Is release of energy in
the absence of oxygen

Cut dotted horizontal lines. Fold vertical line.



LC Agricultural Science – Key Definitions



Dipping

studyclix.ie
makes exams easier

Immersing sheep into water and insecticide in summer to prevent flystrike and mange mite

Docking

studyclix.ie
makes exams easier

Removing a lambs tail using an elastrator to reduce the build-up of faeces around the tail and prevent flystrike

Dagging

studyclix.ie
makes exams easier

Removing the wool of sheep around the tail to prevent flystrike

Shearing

studyclix.ie
makes exams easier

Is the removal of the sheep's fleece using a shear during summer months to prevent overheating and flystrike



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Milk Composition

studyclix.ie
makes exams easier

Water = 87.5 %
Butterfat = 3.8%
Protein = 3.3%
Lactose = 4.6 %
Minerals = 0.8%

Total Bacterial Count (TBC)

studyclix.ie
makes exams easier

Is a test that milk undergoes in a creamery which demonstrates the hygiene in the parlour. Mastitis, incorrect cleaning of milking machine, not cooling milk correctly can all be reasons for high TBC

Somatic Cell Count (SCC)

studyclix.ie
makes exams easier

Is a test that milk undergoes in a creamery which calculates the number of white blood cells in the milk. Mastitis can lead to high SCC which can affect the processing of the milk

Artificial Selection

studyclix.ie
makes exams easier

When plants and animals are selected by humans for breeding to ensure desirable traits



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Cation Exchange

studyclix.ie
makes exams easier

Is the ability of soil particles to attract, retain and release cations

Available Water Capacity (AWC)

studyclix.ie
makes exams easier

Is the amount of water available to plants for absorption between the field capacity (FC) and permanent wilting point (PWP).

$$AWC = FC - PWP$$

Cation Ion Exchange

studyclix.ie
makes exams easier

Is the amount of cation ions that a soil absorbs

Humus

studyclix.ie
makes exams easier

Is decaying organic matter which is rich in nutrients, found in soil

LC Agricultural Science – Key Definitions



Cell

studyclix.ie
makes exams easier

The basic unit of structure and function in an organism

Tissue

studyclix.ie
makes exams easier

A group of cells specialised for a particular function e.g. connective tissue

Organ

studyclix.ie
makes exams easier

A group of tissues working together for a particular function e.g. heart

Selectively Permeable

studyclix.ie
makes exams easier

Only allows some substance to pass through the cells membranes



Cut dotted horizontal lines. Fold vertical line.

LC Agricultural Science – Key Definitions



Dermal Tissue

studyclix.ie
makes exams easier

Protective outer layer of tissue in plants

Vascular Tissue

studyclix.ie
makes exams easier

Transport tissue in plants composed of the xylem, transports water and dissolved minerals and the phloem that transports glucose

Ground Tissue

studyclix.ie
makes exams easier

Is all the other tissue in plants which is the bulk of the plant

studyclix.ie
makes exams easier



Cut dotted horizontal lines. Fold vertical line.