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The Faculty of Teacher Training and Education in  
Collaboration with The Faculty of Agriculture

# English for Agriculture: Step Ahead



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## Preface

### ***Design of the Book***

English has reached more spectrums of communication, ranging from basic colloquial communication to specific and technical realm of communication. University students, as learner of English typically grappling with academic and occupational nuance of English. Devoted to meeting that academically and occupationally contextualized language learning and language use, *English for Agriculture* is developed by taking into account the contents and skills that are pondered crucial by students at the Faculty of Agriculture.

### ***Level and Aim of the Book***

The book is developed within the framework of socio-cognitive approach, seeing language used in different contexts involving integrated language domains, i.e. speaking, writing, reading, and listening. These skills are always integrated, though not entirely, since listening serves as additional skill. The approach, bound to Common European Framework (CEFR), is also operative in establishing the gradation of communicative language abilities across units. Devoted to introductory level of Academic English, the language contents involved only pertain to A2 and B1 levels at CEFR level. This gradation applies to all three-objective units in the book. It is expected, by applying integrated-skill language learning in context, that the book can cater for various language learning needs of students at the very faculty.

### ***Foreword to Teachers and Students***

The book is graded from simple to complex language tasks, ranging from A2 to B1. This is meant to allow teachers structure their instruction in a way that scaffolds students' performance throughout the course. The integrated-language skills in each unit also serves as guideline to plan their lesson plan. In order to cater for students' various performance, the book includes enrichment section wherein students can further practice their language mastery, therefore allowing them to be independent.

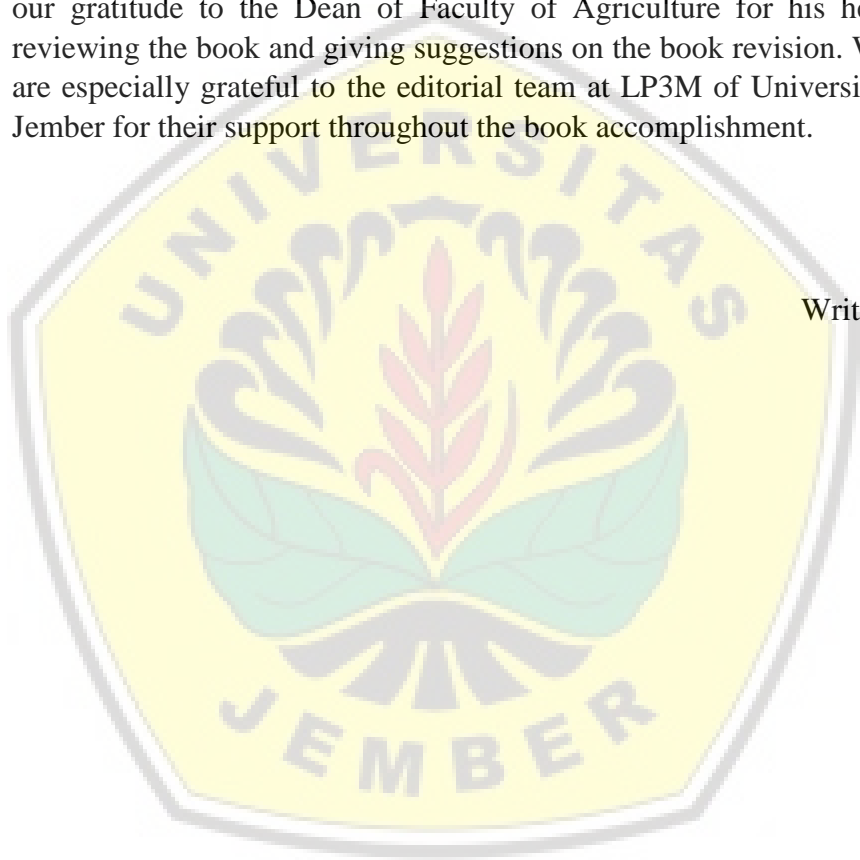
Despite the inclusion of contents related to Agricultural studies, this book lies at the language end on the content-language continuum. The language-focused approach is chosen as the book is meant to be an introduction to English specific to Agricultural studies. As such, the content related to agriculture is only meant to be the theme characterizing every unit included in the book. To scaffold the understanding on technical vocabularies used in Agriculture studies, the book includes specific task in a form of vocabulary log.



Writers

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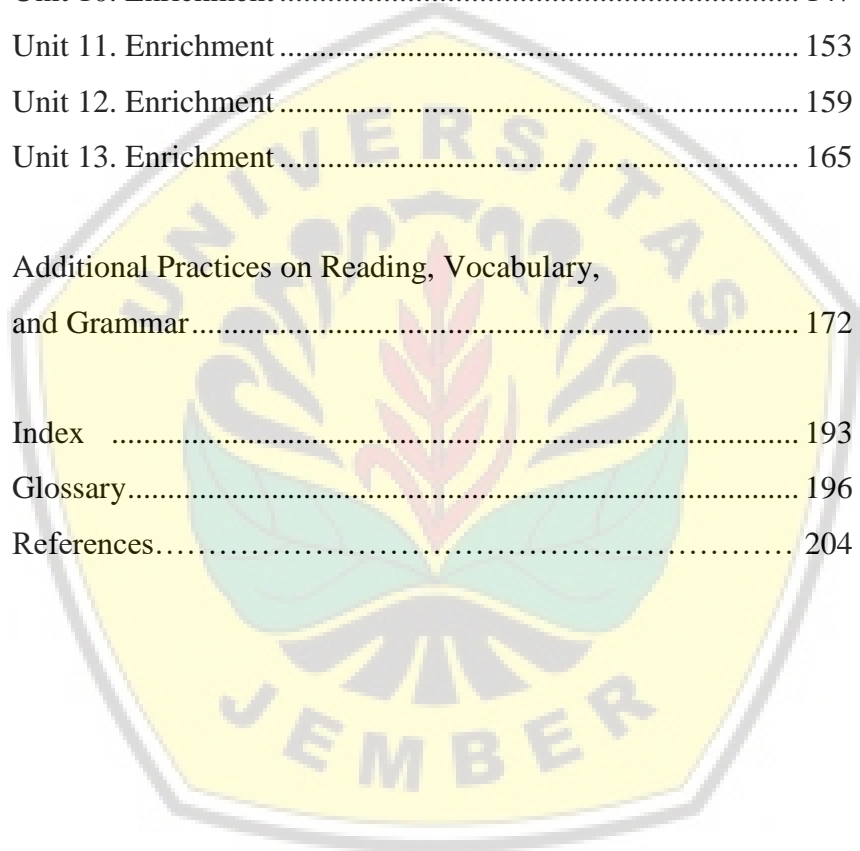


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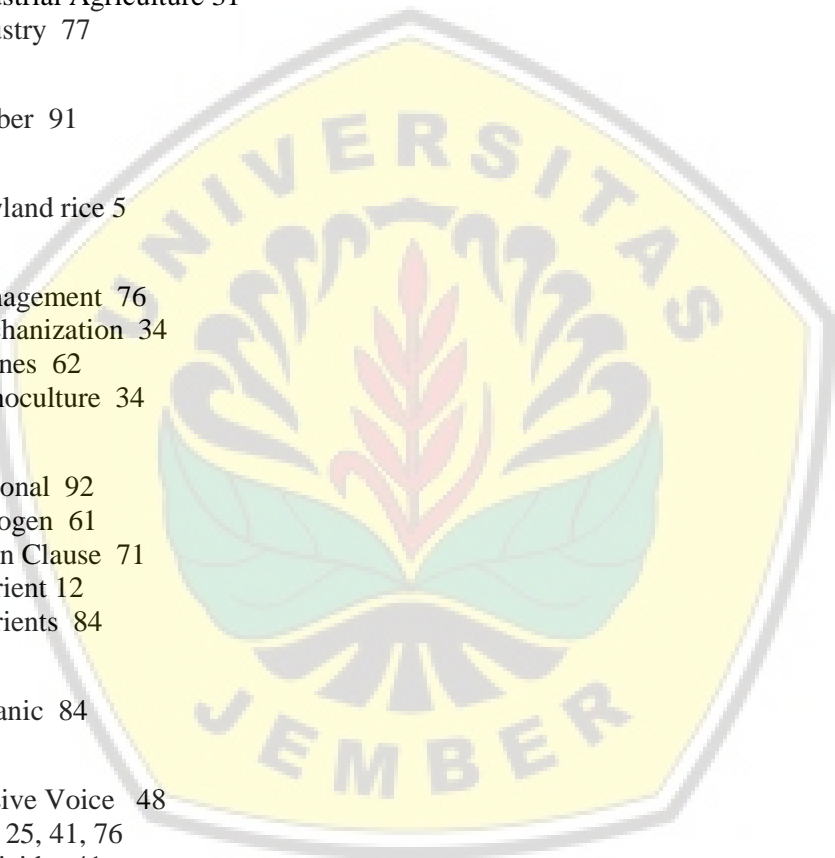
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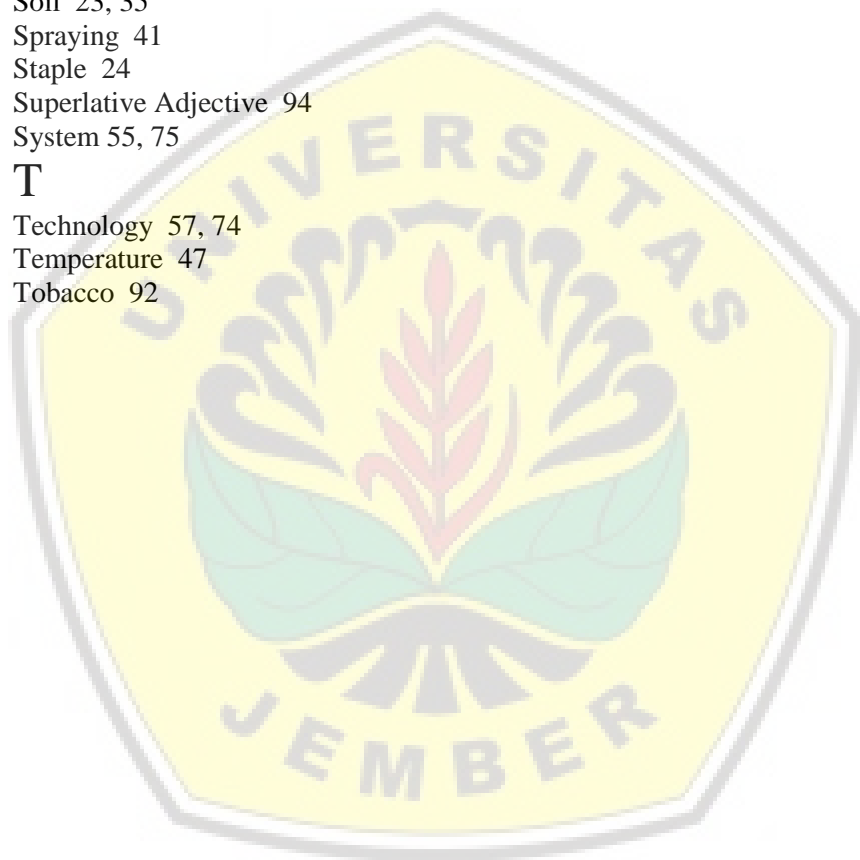
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## Glossary

### A

- Alfalfa (*Medicago sativa*)** : a deep-rooted plant of the pea family
- Agriculture** : the work, business, or study of farming
- Agritourism** : the activity of spending your holiday visiting another country and staying in places in the countryside, for example farms
- Aggravating** : not willing to accept much change, especially in the traditional values of society
- Artisan** : a worker who has special skill and training, especially one who makes things

### B

- Biodiversity** : the variety of different types of plant and animal life in a particular region
- Bloom** : mainly literary a flower

### C

- Capital** : money or property that you use to start a business or invest to earn more money
- Chemical** : a substance used in chemistry or produced by a process involving chemistry
- Composting** : to make decaying plants and vegetables into compost
- Commodity** : something that can be bought and sold, especially a basic food product or fuel

**Conservation** : the management of land and water in ways that prevent it from being damaged or destroyed

**Cultivation** : the process of growing crops or plants

**Customer** : a person or company that buys goods or services

**Crop** : a plant grown for food, usually on a farm

**Chromosome** : a structure that looks like a very small piece of string and that exists, usually as one of a pair, in the central part of all living cells. Chromosomes contain genes.

**Cycles** : events that follow regularly

## D

**Damage** : physical harm caused to something so that it is broken, spoiled, or injured

**Decomposition** : process of becoming bad or rotten after dying (also: decay, rot)

**Demand** : a very firm statement that you want something

**Disease** : an illness that affects people or animals, especially one that is caused by infection

**Destruction** : damage that is so severe that something stops existing or can never return to its normal state

**Drainage** : a system of pipes and passages that take away water or waste liquid from an area

## E

- Ecosystem** : all the plants and animals in a particular area, considered as a system with parts that depend on one another
- Environment** : the place in which people live and work, including all the physical conditions that affect them
- Evaporation** : if liquid evaporates or is evaporated, it changes into gas or steam
- Exceed** : to be greater than a number or amount
- Establish** : to make something start to exist or start to happen

## F

- Farm** : an area of land used for growing crops or keeping animals
- Farmer** : someone who owns a farm or manages it as their job
- Fertile** : fertile land is able to produce good crops or plants
- Fertility** : level of nutrients in the soil
- Fertilizer** : a natural or chemical substance added to soil in order to help plants grow
- Fishery** : a place where fish are bred, either to be sold for food or to be put into lakes and rivers to catch as sport
- Food** : the things that people or animals eat

**G**

**Grain** : the seeds from crops such as wheat, rice, or barley that are used for food

**Grazing** : to eat grass growing in a field

**Growth** : an increase in the number, size, or importance of something

**H**

**Harvest** : the activity of collecting a crop

**Hoe** : farm tool used for cutting soil and removing weeds

**Husbandry** : the activity of farming and caring for animals

**I**

**Irrigation** : to bring water to land through a system of pipes, ditches etc in order to make crops grow

**L**

**Land** : an area of ground, especially one that is used for a particular purpose such as farming or building

**Livestock** : animals such as cows, sheep, and pigs that are kept on farms

**Lowland** : the part of a country that is fairly low and flat

## M

**Manufacturing** : the business of making goods in large quantities in a factory

**Mechanize** : to use machines

**Monoculture** : the practice of growing only one crop in an area

## N

**Nutrient** : a substance in food that plants, animals, and people need to live and grow

## O

**Organic matter** : material containing remains of living things, e.g. plants, animals, insects

## P

**Pasture** : land covered with grass where sheep, cows etc are kept

**Pest** : an insect or small animal that damages plants or supplies of food

**Pesticide** : a chemical used for killing insects, especially those that damage crops

**Photosynthesis** : the process in which green plants combine carbon dioxide and water, by using energy from light, to produce their own food

**Pollution** : the process of damaging the air, water, or land with chemicals or other substances



**Poultry** : birds such as chickens that are used for meat or eggs

**Plantation** : a large farm where crops such as tea, coffee, cotton, and sugar are grown

**Produce** : to make or grow something, especially in large quantities and in order to be sold

**Producer** : a person or company that grows food or makes goods to be sold

**Precipitation** : the process by which a solid substance separates, or is separated from, a liquid it is in

**Prevention** : the act of preventing something, or things that people do in order to prevent something

## R

**Recreation** : things that you do to enjoy yourself

**Released** : to let someone leave a place where they have been kept

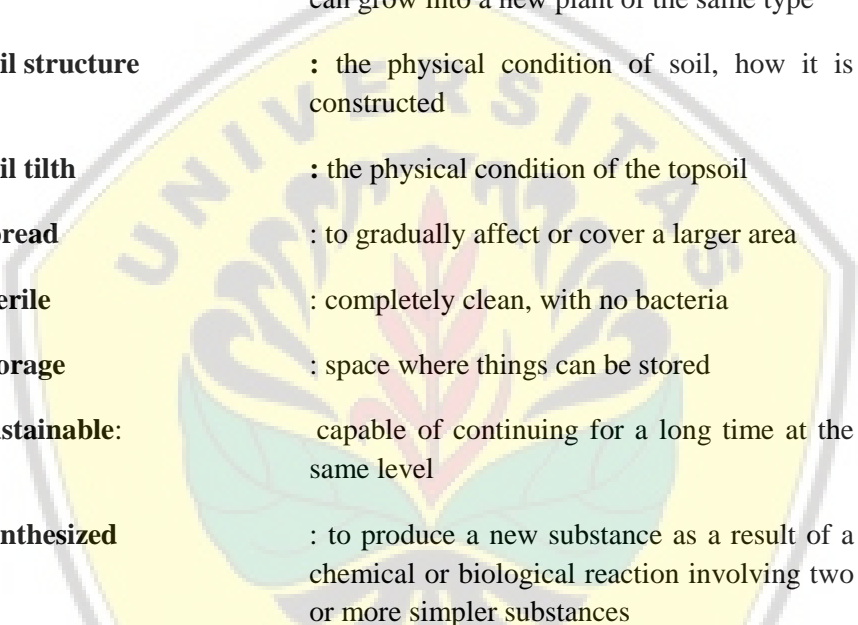
**Reproductive** : relating to the process of having babies or producing young animals or plants

**Ripening** : to become ripe, or to make something ripe

**Rotation** : a cropping system in which two or more crops are grown in the same field but at different times

**Rural** : relating to the countryside, or in the countryside

## S



<b>Sector</b>	: a part of a country's economic or business activity
<b>Seed</b>	: a small hard part produced by a plant that can grow into a new plant of the same type
<b>Soil structure</b>	: the physical condition of soil, how it is constructed
<b>Soil tilth</b>	: the physical condition of the topsoil
<b>Spread</b>	: to gradually affect or cover a larger area
<b>Sterile</b>	: completely clean, with no bacteria
<b>Storage</b>	: space where things can be stored
<b>Sustainable:</b>	capable of continuing for a long time at the same level
<b>Synthesized</b>	: to produce a new substance as a result of a chemical or biological reaction involving two or more simpler substances

## T

<b>Tilled</b>	: to prepare land for putting crops in the ground so that they will grow there
<b>Transplant</b>	: an organ that has been transplanted

## U

<b>Upland</b>	: relating to or living in an area of high land
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## V

**Vegetation** : plants and trees

**Vegetative** : relating to plants, or to the growth of plants

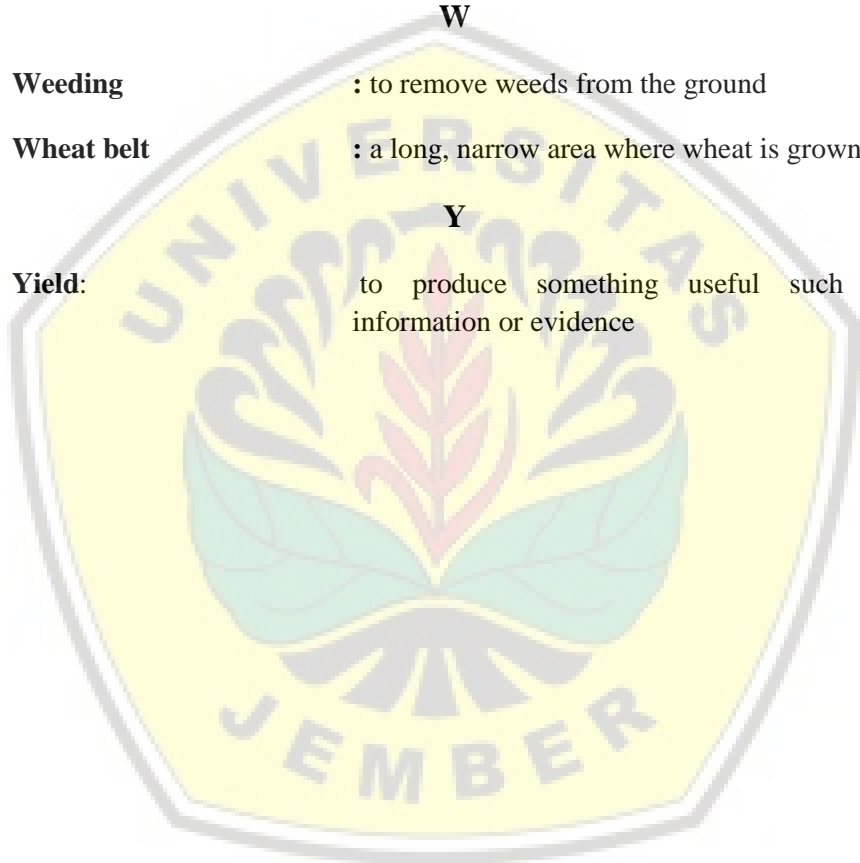
## W

**Weeding** : to remove weeds from the ground

**Wheat belt** : a long, narrow area where wheat is grown

## Y

**Yield:** to produce something useful such as information or evidence



## REFERENCES

- Babas, F. (2015). *Is Agritourism Right for You?* Retrieved online from <https://www.youtube.com/watch?v=97EjGBd0itM>
- Balkan Ecology Project. 2016. *The Polyculture Market Green*. Retrieved online from <https://www.google.com/search?q=the+polyculture+market+green&safe=strict&client=firefox-b-d&source>
- Bayer, Cassie. 2019. *Slash and Burn in Agriculture: Definition and Method*. Retrieved online from <http://study.com/academy/lesson/slash-and-burn-in-agriculture-definition-and-method.html>
- Certour. (2014). *Quality Certification System in Agritourism*. Retrieved online from <http://www.certour.eu/faq/>
- CropLife.org. (2014). *Integrated Pest Management*. Retrieved online from <https://croplife.org/crop-protection/stewardship/integrated-pest-management/>
- Differencebetween.com. (2015). *Difference Between Organic and Inorganic Fertilizer*. Retrieved online from <http://www.differencebetween.com/difference-between-organic-and-vs-inorganic-fertilizer>
- Djajadi, D. (2015). Tobacco Diversity in Indonesia. *Journal of Biological Researches*: 20 (27-32 ).
- Environmental Defense Fund. (2012). *Ecosystems: Working with farmers to decrease Nitrogen pollution*. Retrieved online from <https://www.youtube.com/watch?v=IgetNYzlwas>
- Gould, D. (2012). *Fujitsu To Bring Japanese Food & Agriculture Industries to The Cloud*. Retrieved online from <https://www.forbes.com/sites/daniellegould/2012/07/20/fujitsu-to->

- 
- [bring-japanese-food-agriculture-industries-to-the-cloud/#3917073e5156](https://www.youtube.com/watch?v=ABVvq6i8MF4)
- Grow Organic Peaceful Valley. (2012). *What is Integrated Pest Management (IPM) and How To Use It In Your Garden*. Retrieved online from <https://www.youtube.com/watch?v=ABVvq6i8MF4>
- Hoyt, R. (2018). Four Methods for Applying Fertilizers. Retrieved online from <https://homeguides.sfgate.com/four-methods-applying-fertilizers-25517.html>
- IELTS Academic Reading Sample 144. (2013). *The True Cost of Food*. Retrieved online from <http://www.ielts-mentor.com/reading-sample/academic-reading/814-ielts-academic-reading-sample-144-the-true-cost-of-food>
- IELTS Mentor. (2017). Biological Control of Pests. Retrieved online from <https://www.ielts-mentor.com/reading-sample/academic-reading/789-ielts-academic-reading-sample-119-biological-control-of-pests>
- International Labour Organization. (2007). *Child Labour on Tobacco Plantations in Jember District*. Jakarta: International Labour Office.
- Kissan Zinc Indiva. (2016). *Traditional farming and Modern Farming*. Retrieved online from: <https://www.google.com/search?safe=strict&client=firefox=traditiona1+and+modern+agriculture>
- Lamb, R. (2015). *How Agritourism Works*. Retrieved online from <https://adventure.howstuffworks.com/agritourism2.htm>
- Rainforest saver. (2012). *Slash and burn farming*. Retrieved online from : <https://www.rainforestsaver.org/what-slash-and-burn-farming>
- Schecninger, A. (2015). *Farm Nitrogen Pollution Damage Estimated at \$157 Billion Yearly*. Retrieved online from <https://www.ewg.org/agmag/2015/06/farm-nitrogen-pollution-damage-estimated-157-billion-yearly>
- Thrasivoulou, P. Patsalosavvis, K. Zafirakou, A. (2015). *Water Supply Management in Ciprus under Uncertain Weather Condition*. Retrieved

online from [https://www.researchgate.net/figure/Optimized-water-cycle-management-17\\_fig2\\_261189666](https://www.researchgate.net/figure/Optimized-water-cycle-management-17_fig2_261189666)

Tilley, N. (2018). *Cow Dung Fertilizer: Learn The Benefits Of Cow Manure Compost*. Retrieved online from

<https://www.gardeningknowhow.com/composting/manures/cow-manure-compost.htm>

Ujah, O. (2012). *Expenditure path of government capital spending on agriculture*. Retrieved online from

[https://www.researchgate.net/figure/Expenditure-path-of-government-capital-spending-on-agriculture\\_fig1\\_281277486](https://www.researchgate.net/figure/Expenditure-path-of-government-capital-spending-on-agriculture_fig1_281277486)

West's Enciclopedia of American Law. (2012). *Water Pollution*. Retrieved

online from <https://www.encyclopedia.com/science-and-technology/biology-and-genetics/environmental-studies/water-pollution>

