CHAPTER ONE

INTRODUCTION

1.1 General Background

The present study is on *Language Used in the Journals of Agriculture*. Under this first chapter, I have included sociolinguistics, domains of sociolinguistics, introduction to agriculture, history of agriculture, importance of agriculture, review of related literature, objectives of the study, and significance of the study.

1.1.1 Sociolinguistics

The term sociolinguistics contains two different words ‘socio’ and ‘linguistics’ in which ‘socio’ is related with ‘society ‘or ‘sociology’ and ‘linguistics’ with language. So, sociolinguistics deals with society, i.e. social norms and group behaviors in one hand and language on the other and it does that in relation to one and other.

Generally, sociolinguistics can be defined as 'the study of language in relation to society'. It is one of the important fields, which studies the relation between language and society, between the uses of language and the social structures in which the users of the language live. There is no universal definition of sociolinguistics since different scholars have defined it variously. Some of the crucial definitions are as follows:

In Wardhaugh’s (1998) view “sociolinguistics is concerned with investigating the relationships between language and society with the goal

being a better understanding of the structure of language and of how languages function in communication" (p. 12).

Gumperz (1971) defines sociolinguistics as "an attempt to find correlations between social structure and linguistic structure and to observe any changes that occur." (as cited in Wardhaugh, 1998,p.11).According to Hudson (1996), "Sociolinguistics is the study of language in relation to society" (p.4).Holmes (1992) says "the sociolinguists aim is to move towards theories which provide a motivated account of the way language is used in a community, and to the choices people make when they use language (p.16).

If we analyze the above definitions individually, Wardhaugh's and Gumperze's definitions seem to be similar, only they differ in the use of terms. Wardhaugh uses the term language and society whereas Gumperz uses linguistic structure and social structure for the same terms. But both of them relate language and society to define sociolinguistics. Similarly, Hudson defines sociolinguistics as the field of studying language with the society. But Holmes focuses on the sociolinguists' task rather than defining sociolinguistics itself. His definition is more related with the sociolinguists' contribution and less with the discipline-sociolinguistics.

Though various scholars have defined sociolinguistics variously, they all agree that it is one of the crucial disciplines which relates language with society. As language is not used in a vacuum, the study of language cannot be completed without sociolinguistics. So, the language is a social phenomenon which is inherently related with sociolinguistics. The use of language varies not only according to the situation in which it is used but also according to the persons who are engaged in the language used or the subject matter being discussed. As the social structures are different from society to society, the languages used in those societies are different from each other.

In short, no two languages are identical in the world. Sociolinguistics deals with how the different social structures are responsible to difference, how different people speak different languages, reasons of using different languages and so on.

Sociolinguists are interested in explaining why we speak differently in different social contexts, and they are concerned with identifying the social functions of language and the ways it is used to convey social meaning. Examining the way people use language in different social contexts provides a wealth of information about the way language works as well as about the social relationships in a community. One of the uses of language is to communicate meaning but it is also used to establish and maintain social relationship. For example, we speak differently with our parents, teachers, elders, youngers and so on. Like other subjects, sociolinguistics is partly empirical and partly theoretical –partly a matter of going out and amassing bodies of fact and partly of sitting back and thinking. In particular, it allows the beginnings of an analytical framework to be worked out, containing terms such as ‘language ‘, ‘speech’, ‘speaker’ ‘addressee,’ ‘topic’ and so on. And personal experience is a rich source of information on language in relation to society.

Most of the growth in sociolinguistics took place in the late 1960s and early 1970s, so it can be seen how young the discipline is. But it does not mean that the study of language in relation to society was invented in 1960s, there is a long tradition in the study of dialects and the general study of the relation between word –meaning and culture, both of which count as sociolinguistics by our definition. What is new is the widespread interest in sociolinguistics and realization that it can throw much light both on the nature of language and the nature of society.

1.1.1.1 Domains of Sociolinguistics

Domain is an area of human activity in which one particular speech variety or combinations of several speech varieties are regularly used. The important domains of sociolinguistics are: language varieties, varieties of linguistic codes, speech community, language planning, bilingualism, diglossia, language usage, language use and so on. Though there are different areas of sociolinguistics, the present study is mainly concerned with the 'register' which is one of the varieties of linguistic codes.

A variety of language is one of the crucial domains of sociolinguistics. It deals with the nature and structure of different languages which vary from each other. It shows the variations of language. Hudson (1996) defines a variety of language as "a set of linguistic items with similar distribution" (p.22). Similarly, Ferguson (1971) offers another definition of variety:

> Any body of human speech long question patterns which is sufficiently homogenous to be analyzed by available techniques of synchronic description and which has a sufficiently large repertory of elements and arrangements or processes with broad enough semantic scope to function in all formal contexts of communication. (p.30)(As cited in Wardhaugh, 1998, p.21)

Hudson and Ferguson both agree in defining variety in terms of a specific set of 'linguistic items' or 'human speech patterns' which we can uniquely associate with some external factors. Varieties of language include standard language,

classical and vernacular languages, artificial and natural languages, lingua franca, pidgin and creoles.

Linguistic code refers to a particular language. Every linguistic code has its varieties, which we call varieties of linguistic codes. Each linguistic code in itself is a variety of human language and therefore variety of linguistic codes can also be termed as varieties of varieties. Any linguistic code is manifested in the forms of different varieties and is the sum total of its varieties.

Mainly, varieties of linguistic codes include language, dialect, register and idiolect. All these varieties are inevitable and valuable areas of sociolinguistics.

Language is unique feature of human beings which differentiates human beings from rest of animals in the world. It is a means of communication which is used to share our feelings, desires, emotions, thoughts and so on. It is a social phenomenon since it is used in the society not in the vacuum. Every language is unique in its nature i.e. not two languages are identical. Languages are different according to the degree of formality, social status, regional distance and so on. Different people speak different languages. It differs according to use and the users. A language is a dialect with navy and army.

Dialect is a regionally or socially distinctive variety of language, identified by a particular set of words and grammatical structures. The variation in the use of a language according to the place, time and group of people is called dialect. Dialect betrays the personality since it tells about the speaker's social and geographical background i.e. we guess what part of the country they belong to, what social status they are enjoying by the kind of language they use. It is a user based variety of language.

Idiolect refers to the individual's total command of a language. Crystal (2003) says that idiolect is the linguistic system of an individual speaker, one's

personal dialect. It is the personal style of speaking a language or individuals' unique speech habit. Individual's idiolect includes their way of communication; for example, their choice of utterances and the way they interpret the utterances made by others. It also includes those features, either in speech or in writing which distinguishes one individual from others, such as voice quality, pitch and speech rhythm.

The terms 'register' is widely used in sociolinguistics to refer to varieties according to use, in contrast with dialects, defined as varieties according to user. Effective communication demands not only grammatically correct utterances but situationally appropriate also. For example, the expression 'shut the door' is grammatically correct but to use this to one's superior is not acceptable. Similarly, to use literary language for scientific purposes will be a bad mistake. So, language varies not only according to the social characteristics (e.g. class, caste, sex, education) of the speakers but also according to the social context in which s/he finds himself/herself. The same speaker uses different linguistic varieties in different situations. In Wardhaugh's (1998) words, "registers are sets of language items associated with discrete occupational or social groups. Surgeons, airline pilots, bank managers, sales clerks, jazz fans and pimps employ different registers" (p.48). Ferguson (1994) says, "People participating in recurrent communication situations tend to develop similar vocabularies, similar features of intonation, and characteristics bits of syntax and phonology that they use in these situations. This kind of variety is register" (p.20).

Register is that kind of language variety which may be based either on situation, or purpose or topic. It is distinguished according to the substance or medium the language uses, and according to this, there may be either spoken or written registers. Halliday (1973) distinguished three general types registers i.e. field based, mode based and tenor based registers.

Mode based register refers to the means by which communication takes place – notably, by speech or writing. It answers the question of ‘how’.

Tenor based register depends on the relationship between the participants. Tenor is about ‘to whom’ i.e. how the speaker views the person addressed. For instance, in writing a letter, a person might start 'I am writing to inform you that … ', but in another the same person may write: 'I just wanted to let you know that …’

Field based register is concerned with the purpose and subject matter of the communication. It refers to ‘why’ and ‘about what’ communication takes place. Different fields use different languages. For example, scientific language is different from political language. Likewise language used in law, art, business, medical sector, agricultural sector, fashion designing and so on are different from each other. The proposed study is mainly related to the description of language used in the journals of agriculture. It will take into consideration only one field i.e. agriculture.

1.1.2 ESP: A Brief Introduction

At first, *Language for Special Purposes* (i.e. LSP) has begun to appear more and more frequently in language teaching literature. Now, many scholars and its followers use the term *English for Specific Purposes* (i.e. ESP). It is thought that the former (i.e. LSP) is restricted language which, for many people, is only a small part of ESP, the latter one (i.e. ESP) focuses attention on the purpose of the learner and refers to the whole range of language resources. Holdson (1977, p.11) collects different articles in the book 'English for Specific Purposes' where Kerr clarifies what ESP seeks to do and the areas with which it is concerned. Mackay (in Robinson's, 1984, p.6) argues "ESP is generally used to refer to the teaching/learning of a foreign language for a clearly utilitarian

purpose of which there is no doubt". Thus, by ESP is meant the teaching of English, not as an end in itself but as an essential means to a clearly identifiable goal. The crucial word is 'Purpose' for there is always a purpose behind language teaching. If we are to teach English for a special purpose, we have to consider the ways in which we hope to achieve the end. So, we have to design a syllabus that will meet the needs of the students and adopt our methodology in order to teach the necessary skills. Mackay and Mountford (in Robinson's, 1984, p. 6) suggest three kinds of purposes:

- *Occupational requirements, e.g. civil airline pilots and so on.*
- *Vocational training progrmmes, e.g. for hotel and catering staff, technical trader.*
- *Academic or professional study; e.g. engineering, medicine, law.*

The first thing in ESP is time factor where the students will normally have a pressure to achieve the required level of linguistic competence in the minimum (given) time. The students and teacher should be constantly aware of the purpose and they introduce relevant material into the course that is learner-centered. Attention to the needs of the learner is constantly a key element in any ESP course. The student of ESP is usually studying in order to 'perform a role'. The attention of student should be in successful performance in English rather than knowledge of the rules of general English. Each individual student has different needs and purposes, which an ESP course should aim to satisfy. But a general English course tries to accomplish to perform their role in general regardless of their specific purposes. The age of the ESP learners is another element in which more people agree. For most of the people's concept the learner is an adult or near adult. Considering such facts the ESP course is designed for a reasonable number of students with identical or nearly identical needs and those needs should be satisfied and the course is limited to or more

specific according to their needs the course can be determined in following ways:

- *Restriction:* Only basic skills are included which are required by the learner's purposes.
- *Selection:* Required vocabulary, grammar, language function are included.
- *Themes and Topics:* Only required themes topics, situations, etc. are included.
- *Communicative Needs:* Only those communicative needs are included which are required by the learner's purposes.

In conclusion, an ESP course is purposeful and is aimed at the successful performance of occupational or educational roles. Any ESP course may differ forms another in its selection of skills, topics, situations and functions and also language. It is likely to be of limited duration. Students are more often adults but not necessarily so, and may take part in their ESP course before embarking on their occupational or educational role. It is based on a regional analysis of students needs and should be 'tailor-made' (perfectly suited). They may be at any level of competence in the language: beginner, pot-beginner, intermediate .They may already be competent in their occupation or discipline but may desire to perform their role in English as well as in their language.

Generally, ESP can be analyzed in the following headings in brief.

1.1.2.1 Register Analysis

Most of the linguists and parishioners agree that ESP materials are based on register analysis. Register is used to refer to vocabulary collection, lists of lexical items, structural items, choice of lexical verb, verb-phrase, noun-phrase etc. ESP courses should be designed locally for specific target students with

any register confining the particular set of textbooks for their special subject that a particular class employs.

1.1.2.2 Discourse Analysis and the Communicative Competence

Discourse (text) refers to a stretch of language, either spoken or written, analysis of which considers aspects of sentence connection, or cohesion. A stretch of language is a unique piece of communication and the use of connectives in discourse is one of the futures to differentiate texts one from antoher5. So, discourse markers and connectives have developed alongside ESP. ESP necessarily entails a concern with communicative competence where students feels that they are involved in a communicative activity and not just learning usage. It is found that the majority of ESP students are probably pre-experience or in -service or post-experience students with very limited or at least inadequate knowledge of English. For that the ESP course should focus on their interest, aim, communicative competence and motivation.

1.1.3 ESP for Agriculture

Agricultural language is a register which is different from other fields. As the agriculture field is different from other, it has its own language which we call language for specific purpose (LSP) for agriculture. The language used in this field is unique and specific which are confined only to this field. There are some words like plantation, pesticides, irrigation, weeding, production and so on which are repeatedly and popularly occur in the agriculture. Its different verdicts, typical vocabularies, typical abbreviation make it separate from other fields.

So, each academic subject area has its own register i.e. particular lexis and syntax that are the features of the subject and to some extent distinguish it from other subjects from the point of view of language. In agriculture, fairly

common language features are description, definition, exemplification, analysis and interpretation.

1.1.4 An Introduction to Agriculture

Agriculture refers to the production of goods through the growing of plants fungi, and the raising of domesticated animals. The study of agriculture is known as agriculture science. The related practice of gardening is studied in horticulture.

The word agriculture is the English adaptation of Latin agricultura from ager, "a field" and cultura, "cultivation" in the strict sense of " tillage of the soil". Thus, a literal reading of the word yields "tillage of a field/ of fields".

Source: http// en. wikipedia. organization./ wiki/ Agriculture.

Agriculture encompasses a wide variety of specialties. Cultivation of crops on arable land and the pastoral herding of livestock on rangeland remain at the foundation of agriculture. In the past century, a distinction was made between sustainable agriculture and intensive farming. Modern agronomy, plant breeding, pesticides and fertilizers, and technological improvements have sharply increased yields from cultivation. Selective breeding and modern practices in animal husbandry such as intensive pig farming (and similar practices applied to the chicken) have similarly increased the output of meat. The more exotic varieties of agriculture include aquaculture and tree farming.

Agriculture has played a key role in the development of human civilization .It is widely believed that the domestication of plants and animals allowed humans to settle and give up their previous hunter-gather lifestyle during the Neolithic Revolution. Until the Industrial Revolution, the vast majority of the human population labored in agriculture. Development of agricultural techniques has steadily increased agricultural productivity, and the widespread

diffusion of these techniques during a time period is often called an agricultural revolution. A remarkable shift in agricultural practices has occurred over the past century in response to new technologies. In particular, the Haber-Bosch method for synthesizing a ammonium nitrate made the traditional practice of recycling nutrients with crop rotation and animal manure less necessary. Synthetic nitrogen, along with mined rock phosphate, pesticides and mechanization has greatly increased crop yields in the early 20th century. Increased supply of grains has led to cheaper livestock as well further, global yield increases were experienced later in 20th century when high-yields varieties of common staple grains such as rice, wheat, and corn (maize) were introduced as a part of the Green Revolution. The Green Revolution exported the technologies of the developed world out of the developing world. Thomas Malthus famously predicted that the earth would not be able to support its growing population, but technologies such as the Green Revolution have allowed the world to produce a surplus of food.

1.1.4.1 History of Agriculture

Agriculture was developed at least 10,000 years ago, and it has undergone significant development since the time of the earliest cultivation. Evidence points to the Fertile Crescent of the Middle East as the site of the earliest planned sowing and harvesting of plants that had previously been gathered in the wild. Independent development of agriculture occurred in northern and southern China, Africa's Sahel, New Guinea and several regions of the Americas. Agricultural practices such as irrigation, crop rotation, fertilizers, and pesticides were developed long ago but have made great strides in the past century. The Haber- Bosch method for synthesizing ammonium nitrate represented a major breakthrough and allowed crop yields to overcome previous constrains. In the past century agriculture was characterized by

enhanced productivity, the substitution of labor for synthetic fertilizers and pesticides, selective breeding, mechanization, water pollution, and farm subsides. In recent years there has been a backlash against the external environmental effects of conventional agriculture, resulting in the organic movement.

Identifying the exact origin of agriculture remains problematic because the transition from hunter-gatherer societies began thousands of years before the invention of writing. Nonetheless, archaeobotanists/paleoethnobotanists have traced the selection and cultivation of specific food plant characteristics, such as semi-tough rachis and larger seeds, to just after the Younger Dryas (about 9500 B C) in the early Holocene in the Levant region of the Fertile Cresent. There is earlier evidence for use of wild cereals: anthropological and archaeological evidence from sites across Southwest Asia and North Africa indicate use of wild grain (e.g., from the ca. 20000 B C site of Ohalo II in Israel).

A. Ancient Origins

Developed independently by geographically distant populations, systematic agriculture first appeared in Southwest Asia with the bulk of domesticated Neolithic crops and livestock now being traced to Turkey via DNA studies. The first grains of domesticated Turkish emmer wheat are found at Abu Hurerya dated to 13500 B C. The only exceptions to this are barley, domesticated in two sites; in Levant, and East of the Zagros Mountains in Iran. The eight so-called founder crops of agriculture appear: first emmer and einkorn wheat, then hulled barley, peas, lentils, bitter vetch, chick peas and flax. Bitter vetch and lentils along with almonds and pistachios appear in Franchthi Cave Greece simultaneously, about 9000 BC. Neither is native to Greece, and pistachios appear in 2000 years prior to domesticated wheat in the

same location. This suggests that the cultivation of legumes and nuts preceded that of grains.

By 7000 BCE, small scale agriculture reached Egypt. From at least 7000 BCE the Indian subcontinent saw farming of wheat and barley as attested by archaeological excavation at Mehrgarh in Balochistan. By 6000 BCE, mid-scale farming was entrenched on the banks of the Nile. About this time, agriculture was developed independently in the Far East, with rice, rather than wheat, as the primary crop. Chinese and Indonesian farmers went on to domesticate mung, soy, azuki and taro. To complement these new sources of carbohydrates, highly organized net fishing of rivers, lakes and ocean shores in these areas brought in great volumes of essential protein. Collectively, these new methods of farming and fishing inaugurated a human population boom dwarfing all previous expansions, and are one that continues today.

By 5000 BCE, the Sumerians had developed core agricultural techniques including large scale intensive cultivation of land, mono-cropping, organized irrigation, and use of a specialized labor force, particularly along the waterway now known as the Shatt al-Arab, from its Persian Gulf delta to the confluence of the Tigris and Euphrates. Domestication of wild aurochs and mouflon into cattle and sheep respectively ushered in the large-scale use of animals for food/fiber and as beasts of burden. The shepherd joined the farmer as an essential provider for sedentary and semi-nomadic societies.

Mize, manioc, and arrowroot were first domesticated in the Americas as far as back as 5200 BCE. The potato, tomato, pepper, squash several varieties of bean, Canna, tobacco and several other plants were also developed in the New World, as was extensive terracing of steep hillsides in much of Andean South America.

In later years, the Greeks and Romans built on techniques pioneered by the Sumerians but made few fundamentally new advances. Southern Greeks struggled with very poor soils, yet managed to become a dominant society for years. The Romans were noted for an emphasis on the cultivation of crops for trade.

B. Middle Ages

During the Middle Ages, Muslim farmers in North Africa and near East developed and disseminated agricultural technologies including irrigation systems based on hydraulic and hydrostatic principles, the use of machines such as norias, and the use of water raising machines, dams, and reservoirs. They also wrote location- specific farming manuals, and were instrumental in the wider adoption of crops including sugar cane, rice, citrus fruit, apricots, cottons, artichokes, aborigines, and saffron. Muslims also brought lemons, oranges, cotton almonds, figs and sub-tropical crops such as bananas to Spain.

The invention of a three field system of crop rotation during the Middle Ages, and the importation of the Chinese invented moldboard plow, vastly improved agricultural efficiency.

Another important development towards the end of this period was the discovery and subsequent cultivation of fodder crops which allowed over wintering of livestock.

C. Modern Ages

After 1492, a global exchange of previously local crops and livestock breeds occurred. Key crops involved in this exchange included the tomato, maize, potato, cocoa and tobacco going from the New World to the Old, and several verities of wheat, spices, coffee, and sugar cane going from the Old World to

the New. The most important animal exportation from the Old World to the New were those of the horse and dog (Dogs were already present in the pre-Columbian Americas but not in the numbers and breeds suited to farm work). Although not usually food animals, the horse (including donkeys and ponies) and dog quickly filled essential production roles on western hemisphere farms.

By the early 1800s, agricultural techniques, implements, seed stocks and cultivars had so improved that yield per land unit was many times that seen in the Middle Ages. With the rapid rise of mechanization in the late 19th and 20th centuries, particularly in the form of the tractor, farming tasks could be done with a speed and on a scale previously impossible. These advances have led to efficiencies enabling certain modern farms in the United States, Argentina, Israel, Germany, and a few other nations to output volumes of high quality product per land unit at what may be the practical limit.

In 2005, the agricultural output of China was the largest in the world, accounting for almost one sixth world share followed by the EU, India and the USA, according to the International Monetary Fund.

Economists measure the total factor productivity of agriculture and by this measure agriculture in the United States is roughly 2.6 times more productive than it was in 1948.

Source: http://en.wikipedia.org/wiki/History _ of _ agriculture# Sources

1.1.4.2 Importance of Agriculture

Since the time men learnt to grow crops, agriculture has been main source of food. Today, most of the people in all parts of the world, especially in developing countries, are engaged in agriculture activities.

Human is mainly a grain- eating animal. In Asia, most of the people eat rice. In Europe, North America and Australia, wheat is the main food crop. If rice and wheat cannot be grown, millet and other cereals are grown as food crops. Though men also eat meat, they enjoy eating meat only when they take it together with rice or bread which is made from wheat. It is therefore clear that grains are the main source of man's food, and grains are agricultural products.

Men, however, cannot live on grains alone. They need other foods too to make their meals more palatable. Therefore, they learn to grow vegetables, potatoes and fruits. Like grains, these things come from the soil. They have to be planted and grown with great care. As a result, men have made many experiments on soil for several centuries to increase their production of crops. Men have also leant to consume dried leaves to refresh themselves. Tea and tobacco, the dried leaves of certain plants, have become very popular as sources of refreshments. Even coffee and cocoa are products of plants. Cotton, jute and other fiber are used to make cloths and several other things for our daily needs. All these plants have become very important in agriculture.

In some countries, agriculture is a main source of wealth. The rubber tree and the oil-palm in Malaysia bring millions of dollars every year. In Bangladesh, the jute plant is the main source of wealth. Similarly, in almost every country there is at least one plant which makes a great contribution to the economy of the country. We arrive at the conclusion that agriculture plays an important role in men's world. Importance of agriculture can be summarized in the following points:

a. Agriculture is one of the major sources of income.
b. Agriculture provides not only food but also raw materials for manufacturing industries like textiles, sugar, vegetable oil, jute and tobacco.

c. Agriculture is not only an important occupation of the people, but also way of life, culture and custom.

Source: http//www.manage.gov.in/RR Sites/ Maheshwaram/ agriculture.htm

1.2 Review of Related Literature

No researches have yet been carried out on the *Language Used in the Journals of Agriculture.* So, this study is the fresh research for the Department of English Education. However, there are some related researches available in the department which will work as a guide and reference materials for the present study. Some of the researches conducted on the language used in journals, advertisements, newspapers, banners, signboard, invitation for bids and brochure are reviewed as follows:

Upadhyay (2003) has carried out a research on *A Descriptive Study of Brochure.* The main objective of his study was to find out and describe the physical feature of the brochures and to describe the language used in them. He found that the 'Medium' size brochures were more common and ‘small’ less common. He also concluded that various slogans were found most frequently in the language of brochures.

Chapagain (2005) has conducted a research entitled *The Language Used in English Newspapers Advertisements.* The main objective of his study was to analyze and describe the structures, vocabularies and communicative functions of language used in English newspapers advertisements. He concluded that verbless constructions were found to be used in the highest frequency among all the constructions and non-finite constructions were found to be used least. Regarding vocabulary major words had higher frequency than the minor words. But this study does not talk about the writing style of different advertisements. However, its findings are very significant for all concerned with it.

Baral (2006) has carried out a research on *Language Used in Banners*. The main purpose of his study was to analyze the language used in banners in terms of construction types, tense and aspect. What he found was that the use of verbless constructions, non- past tense, simple aspect and major words occurred frequently in all types of banners though their frequency differs from one type of banner to another. The findings are not mentioned in accordance with the order of the objectives enlisted in this study.

Baral (2006) has carried out a research entitled *Language Used in Greeting Cards*. The main purpose of his study was find out characteristic features of the language used in greeting cards in terms of tense and aspect, contracted form, sentence structure and sentence length. He concluded that the non- past tense was heavily used in two types of cards viz. seasonal cards and everyday cards, the present perfect aspect was used more often than any other aspects in seasonal cards.

Bhandari (2007) has conducted a research entitled *Language Used in Invitation for Bids*. The main purpose of his study was to analyze, describe and compare the language used in invitation for bids in terms of aspect, voice, tense, sentence types and writing. He concluded that simple sentence, non- past tense, simple aspect and passive voice were found to be used maximally in invitation for bids of all of three newspapers published from Nepal.

Budathoki (2007) has conducted a research on *Language Used in Vacancy Advertisements*. The main objectives of his study were to explore the physical features of vacancy advertisements and to analyze the structure used in them in terms of sentence types, tense, voice, aspect and sentence length. He has found that complete sentence with simple sentences were found highly used and they were followed by elliptical sentences. Use of active voice and non-past tense with simple aspect was preferred in writing and the average sentence length

was sixteen words per sentences. On the whole, the style of writing was informal because it contained abbreviations, short forms and technical terms which were specific in vacancy advertisement only.

Sapkota (2008) has carried out a research entitled *Language Used in Human Rights Journals*. This study attempted to analyze the language in terms of sentence types, tense, voice and aspect .He concluded that complex sentences were maximally used. In case of tense, the past tense was mostly used. The passive voice and perfective aspect were maximally used. And nouns were found to occupy the higher frequency.

Although all the above mentioned studies are related to analyzing and describing language used in different fields, no research has yet been carried out on the language used in the journals of agriculture. So, the present study aims at analyzing the language used in the journals of agriculture in terms of tense, aspect, voice, sentence types, and vocabulary items.

1.3 Objectives of the Study

The main objectives of the present study were as follows:

a. To analyze the language used in the journals of agriculture in terms of tense, aspect, voice and sentence types.
b. To list out the special vocabularies used in the journals of agriculture.
c. To suggest some pedagogical implications.

1.4 Significance of the Study

The present study will be of great value to all the persons who are interested in the field of agriculture. This sort of research has not been carried out in the Department of English Education. So, the research will be valuable for the Department itself. The study will be beneficial for those who are interested in

knowing about agriculture. It will work as reference materials for further research works.

1.5 Definitions of the Terms

Sentence Type: Sentence type refers to the types of sentences from the structural point of view. On this basis, sentences are of three types: simple, compound and complex sentences.

Simple Sentence: A simple sentence is a sentence which contains at least one subject and one verb and can stand on its own as an independent clause.

Compound Sentence: A compound sentence consists of two or more clauses of equal grammatical importance and a coordinating conjunction connects the clauses into one sentence.

Complex Sentence: A complex sentence refers to a sentence having at least one independent clause and one or more dependent clauses linked by some subordinators like if, when, while, etc.

Tense: Tense refers to any of the forms of a verb that may be used to show the time of the action or state expressed by the verb. English has two tense system viz. past and non-past.

Voice: Voice refers to form of a verb that shows whether the subject of a sentence performs the action or is affected by it. English has two types of voice viz. active and passive**.**

Aspect: Aspect refers to the manner in which a verbal action is experienced or regarded; for example, whether it is considered completed or in progress. It deals with the state of affairs whether in simple, progressive, perfective or perfective progressive state**.**

Vocabulary: Vocabulary is one of the important building blocks of language, which refers to the words containing in a language having their own identical meaning and have dictionary meaning**.**

Word Class: Word class refers to the parts of speech that a word or vocabulary carries to be identical. There are two types of words viz. major and minor.

CHAPTER TWO

METHODOLOGY

I adopted the following methodology to carry out the study.

2.1 Sources of Data

Data are derived from the different sources according to the purpose of the study. The sources of the data may be primary or secondary. I did not use any kind of primary sources to collect the data for the proposed study.

2.1.1 Secondary Sources of Data

The present study mainly was based on the secondary sources. The main sources were the following journals:

SAARC Journal of Agriculture Vol. 1, 2, 3

Agricultural Development Journal Vol. 2, 3, 4

Nepal Agriculture Research Journal Vol. 4, 5, 6

Though the above mentioned journals were the basic sources for the present study, I consulted different books, theses, websites related to the agriculture.

The books which I consulted for my study were Manandhar (2056),

Wardhaugh (1998), Arts & Arts (1982), Ferguson (1971), Hudson (1996), Ray (1998), Wilson & Webster (1980), Randhawa (1982) and Blake (1967).

2.2 Sampling Procedure

I applied non-probability judgmental sampling design to select the journals of agriculture. I took thirty-six texts from the above mentioned journals by using the same procedure.

2.3 Tools for Data Collection

For this research, observation was the sole tool of data collection. I collected required information from the above mentioned journals through observation for the study.

2.4 Process of Data Collection

a. I collected twelve texts from each journals of agriculture mentioned above in 2.1.2.
b. I observed those texts and took notes of required information.
c. Then I wrote down the data systematically under different headings as sentence types (simple, compound and complex), tense (past and non-past), voice (active and passive) and analyzed them separately.

2.5 Limitations of the Study

The present study had the following limitations:

a. The study was limited to the language used in the journals of agriculture.
b. Only the Vol. 1, 2, 3 of SAARC Journal of Agriculture, Vol. 2, 3, 4 of Agricultural Development Journal and Vol. 4, 5, 6 of Nepal Agriculture Research Journal were included.
c. The study was restricted to the study of thirty-six articles of those journals mentioned above.

d. The study was limited to the analysis of the following categories: sentence types (simple, compound and complex), tense (past and non-past), aspect (perfective and progressive), voice (active and passive), and listing special vocabularies used in the journals of agriculture.

CHAPTER THREE

ANALYSIS AND INTERPRETATION

This chapter provides the analysis and interpretation of the language used in the journals of agriculture in terms of sentence types, tense, aspect, voice and special vocabularies. In this process, firstly, the analysis and comparison of the articles published in the journals of agriculture are done and finally the specification of vocabularies in terms of word class and frequency is shown. Different tables are given to make the ideas clear.

3.1 Sentence Types in the Journals of Agriculture

From the structural point of view, English has the following three types of sentence:

(i) Simple sentence

(ii) Compound sentence

(iii) Complex sentence

3.1.1 Analysis of Sentence Types Used in SJA, NARJ and ADJ

I studied and analyzed the language used in the journals of agriculture viz. SJA Vol. 1, 2, 3, ADJ Vol. 2, 3, 4 and NARJ Vol. 4, 5, 6, to find sentence types. For

this study, I observed two thousand seven hundred and twenty-eight sentences altogether. Regarding sentence types, all three types of sentences were found in the journals of agriculture. The analysis and interpretation of sentence types used in the journals of agriculture is given below:

Table No. 1
Sentence Types in SJA, NARJ and ADJ

Sentence Types	SJA		NAARJ		ADJ		Total	
	Freq.	Per.	Freq.	Per.	Freq.	Per.	Freq.	Per.
SSs	103	14.15	209	23.30	249	22.57	561	22.26
CSs	227	31.18	215	23.97	213	19.31	455	18.04
CxSs	398	54.67	473	52.73	641	58.12	1503	59.7
Total	728	100.00	897	10000	1103	100.00	2519	100.00

The above table shows that the CxSs had the highest frequency in all the journals mentioned above. The CxSs were used more frequently than SSs and CSs. They occupied the first position in all the journals. Similarly, CSs and SSs occupied the second and third position respectively. In all the journals, CxSs covered 55.42 percent (i.e. 1512 out of 2728), which is more than half of the total sentences. Similarly, CSs were found to have been used with the frequency of 24.01 percent (i.e. 655 out of 2728), which is less than one-third of the total sentences. SSs had the least frequency of occurrences, covering only 20.57 percent which is one-fifth of the total sentences in above mentioned journals.

3.1.2 Analysis of Sentence Types Used in SJA

Here, the language used in SJA was analyzed to find out the use of sentence types. The study revealed the following frequency of occurrences of sentence types from the judgmentally selected twelve texts of the SJA.

Table No. 2
Sentence Types in SJA

Sentence Types	Frequency	Percent
SSs	103	14.15
CSs	227	31.18
CxSs	398	54.67
Total	728	100.00

The above table shows that CxSs were found to have the highest frequency of all, covering 54.67 percent in the SJA. The CxSs occupied more than half percent of the total sentences (i.e. 398 out of 728) with first position. Similarly, CSs occupied the second position with 31.18 percent which is nearly one-third of the total. In the same way, SSs occupied the last position in SJA.

The following are the some examples of SSs (a-b), CSs (c-d) and CxSs (e-f) used in SJA:

a) Rice wheat cropping systems occupy 24 millions hectare of cultivated land in the Asian subtropics. (Vol. 1)

b) Late maturity of rice and time taken for land preparation causes delay in wheat sowing. (Vol.1)

c) Tillage systems were assigned in main plots and depth in sub plots in a split plot experimental design replicated three times. (Vol.2)

d) At upper layer soil respiration during maize germination was significantly higher in minimum tillage than under conventional tillage nut during wheat germination insignificantly high value was recorded in minimum tillage than under conventional tillage. (Vol. 3)

e) However, population has also been reduced to quickly when high populations of beneficial insects were present during the early and late season. (Vol.3)

f) It is difficult to imagine the cessation of the development of resistance, because resistance is acknowledged as one of the evolutionary products of pesticide application. (Vol. 1)

3.1.3 Sentence Types Used in ADJ

The language used in ADJ was analyzed to find out the use of sentence types. The study revealed the following frequency of the occurrences of sentence types from the judgmentally selected texts of ADJ.

Table No. 3

Sentence Types Used in ADJ

Sentence Types	Frequency	Percent
SSs	249	22.57
CSs	213	19.31
CxSs	641	58.12
Total	1103	100.00

The table vividly shows that the CxSs were found to have been used with the highest frequency covering 58.12 percent which is more than half of the total sentences. Similarly, the SSs and CSs were used less frequently than the CxSs. The SSs and CSs occupied the second and third position with 22.57 percent and 19.31 percent respectively in ADJ.

The following are the some examples of SSs (a-b), CSs (c-d) and CxSs (e-f) used in ADJ.

a) The study was based on the primary information collected from mandarin- farmers by using household survey and participatory rural appraisal tools. (Vol.4)

b) The diverse biophysical conditions of the area have several implications for resource use and management. (Vol.4).

c) Tenth plan emphasized the integration of women in the agricultural programs, but there seems to be a huge gap between the policies and implementation, which needs to be reduced. (Vol.2)

d) Despite of their importance in agriculture development they are always neglected and never been given due importance by the higher authorities or the policy makers. (Vol.2)

e) More emphasis should be given for rain fed agricultural technologies because irrigation cannot be made available in steep, slopes, and uplands. (Vol.3)

f) Although increasing fragmentation of already small holdings is an issue in Nepal, it is not cause for the stagnancy or decline in yield, as is generally believed. (Vol. 2)

3.1.4 Analysis of Sentence Types in NARJ

The language used in NARJ was analyzed to find out the use of sentence types. The study found the following frequency of the occurrences of sentence types from the twelve purposively selected texts of NARJ.

Table No. 4

Sentence Types in NARJ

Sentence Types	Frequency	Percent
SSs	209	23.30
CSs	215	23.97

CxSs	473	52.73
Total	897	100.00

The table exhibits that the CxSs were found to have been used with the highest frequency in NARJ. The CxSs occupied the first position covering 52.73 percent (i.e. 473 out of 897) which is more than half of the total sentences. In comparison to the CxSs, the SSs and CSs were found to have been used less frequently. The CSs occupied the second position with 23.97 percent (i.e. 215 out of 897), which is one-forth of the total; SSs were used with the least frequency covering only 23.3 percent in NARJ.

The following are some examples of SSs (a-b), CSs (c-d), and CxSs (e-f) from NARJ.

a) Trapped insects were counted at weekly intervals. (Vol. 4)
b) The field was laid out in a randomized complete block with three replication (Vol. 4)
c) There are many examples of improved varieties gaining popularity within a short period of time but later become susceptible. (Vol.6)
d) National and international organizations have explored and collected many rice genotypes from different parts of Nepal but their value and uses are very little known. (Vol.6)
e) If more number of ancestors is used more genes are conserved in a single cultivar. (Vol.5)
f) Although PVM was less common than PVS, PVX or PVY, it is also perpetuated in infected tuber and transmitted by physical contact and by aphids. (Vol.6)

3.2 Tense in the Journals of Agriculture

Tense refers to the relationship between form of the verb and the time of action or state it describes. English has two tense systems viz. past and non-past. Generally, the past tense shows the past time whereas non-past tense shows the present as well as future time. However, this is not always true.

I found that both past and non past tenses used in the texts of agriculture. The study revealed that the past tense was used more frequently than the non-past tense. The analysis and interpretation of tense used in SJA, ADJ and NARJ is given below:

3.2.1 Analysis of Tenses Used in SJA, ADJ and NARJ

The frequency of occurrences of tense used in SJA, ADJ and NARJ has been compared, analyzed and interpreted below:

Table No. 5

Tense Used in SJA, ADJ and NARJ

Tense	SJA		ADJ		NARJ		Total	
	Freq.	Per.	Freq.	Per.	Freq.	Per.	Freq.	Per.
Past	511	70.19	656	59.47	584	65.11	1751	64.18
Non-past	217	29.81	447	40.53	313	34.89	977	35.82
Total	728	100.00	1103	100.00	897	100.00	2728	100.00

The above table clearly shows that the past tense was used most frequently in all three journals mentioned above. The past tense covered 70.19percent, 59.47 percent and 65.11 percent in SJA, ADJ and NARJ respectively, which is more than half of the total. Similarly, the non-past tense was found to have less frequency than the past tense in all three journals. The non-past tense covered 29.8 percent, 40.53 percent and 34.89 percent in SJA, ADJ and NARJ respectively. The least use of non-past tense was found in SJA, which is less than one-third of the total. Similarly, the highest use of the past tense was

found in SJA covering 70.19 percent, which is more than two third of the total. In the same way, the past tense was found to have been used more frequently in NARJ than in ADJ. The frequency of past tense in NARJ covered 65.11percent whereas 59.49 percent in ADJ. In aggregate, the frequency of the past tense was more than that of non-past tense. The past tense, in total covered 64.18 percent (i.e. 1751 out of 2728) whereas the non-past covered only 35.82 percent (i.e. 977 out of 2728).

Some examples of tenses used in the above mentioned agricultural journals are given below.

a) Ancestors were defined as founding stocks with no known pedigree. (NARJ, Vol.6)
b) In leaf dip bioassay there were some variables that affected the experiment. (SJA, Vol. 3)
c) The government ensures its parts as facilitation of all activities. (ADJ, Vol. 2)
d) It can be judged on the basis of impact of the technologies as observed in the farmers' field (ADJ, Vol. 2)

The past tense is used in the examples 'a' and 'b' given above in order to state facts with the sense of remoteness in terms of time. Likewise, there is use of the non-past tense in the examples 'c' and 'd' because they express the present action or event.

3.2.2 Analysis of Tense Used in SJA

Here, I observed seven hundred and twenty-eight sentences to find out the tense used in agriculture. The study found the following frequency of tense used in it.

Table No. 6

Tense Used in SJA

Tense	Frequency	Percent
Past	511	70.19
Non-past	217	29.81
Total	728	100.00

The above given table clearly shows that the past tense was used more frequently than the non-past tense in SJA. Out of seven hundred and twenty-eight sentences, five hundred and eleven sentences were found in the past tense covering 70.19 percent, which is more than two-third of the total sentences.

Only two hundred and seventeen sentences were found in the non-past tense. The non-past tense covered 29.81 percent which is less than one-third in totality.

Some examples of the use of tense past (a-b) and non-past (c-d) in the SJA are as follows:

a) Moreover, recently government launched a national program on increasing goat production for reducing poverty. (Vol.1)
b) In each field, sampling was done on monthly basis to record the population of predators. (Vol. 1)
c) Goat plays an important role by producing meat, milk and skin in the national economy of Bangladesh. (Vol.2)
d) The practice of minimum tillage is important due to its role in protecting the soil from wind and water erosion. (Vol.3)

3.2.3 Analysis of Tense Used in ADJ

I carefully observed one thousand one hundred and three sentences to find the frequency of tense used in ADJ, and found the following frequency of tenses used in it.

Table No. 7

Tense Used in ADJ

Tense	Frequency	Percent
Past	656	59.47
Non-past	447	40.53
Total	1103	100.00

This table shows that the past tense was found to have been used with high frequency. The past tense covered 59.47 percent (i.e. 656 out of 1103), which is more than half of the total sentences. Similarly, the non-past tense was used less frequently in ADJ. It covered only 40.53 percent (i.e. 447 out of 1103), which is less than half of the whole portion.

Some examples of the use of tense, the past (a-b) and non-past (c-d) in ADJ is given below:

a) However, the act created a situation of "dual ownership" of land, in that both the landowner and the tenant could lay claim on the same piece of land albeit in varying proportions. (Vol.2)

b) The agrarian reforms would not succeed without rural infrastructure development. (Vol. 2)

c) The agrarian reforms go beyond land distribution and infrastructure development to make its impacts equitably shared by all in the rural areas. (Vol. 3)

d) Currently, biodiversity literature aims to emphasize conversation of all the diversity and variability available in a given ecosystem, species and cultivar. (Vol. 4)

3.2.4 Analysis of Tense Used in NARJ

I observed eight hundred and ninety-seven sentences from the judgmentally selected texts of NARJ, in order to find the frequency of tense (i.e. past and non-past). From the careful study and observation, I found the following frequency of occurrences of tenses.

Table No. 8

Tense Used in NAARJ

Tense	Frequency	Percent
Past	584	65.11
Non-past	313	34.89
Total	897	100.00

The above table shows that the past tense in NARJ was found to have been used more frequently than the non -past tense. The past tense was found to have the use of nearly two-third of the total sentences. It covered 65.11 percent (i.e. 584 out of 897). Similarly, the non-past tense covered only 34.89 percent, which is more than one-third of the total. The non-past tense was found to have less frequency than the past tense in NARJ.

Some examples of the past tense (a-b) and the non-past tense (c-d) found in NARJ are given below:

a) The standardization procedure reduced the effect of different scales of measurement of different characters. (Vol. 5)

b) Prevailing of such situations did considerable damage to the rice crop stand. (Vol.4)

c) Tomato is one of the most important vegetable crops grown form subsistence to commercial scale in Nepal. (Vol. 6)

d) Chemical method of controlling the disease is not practical and economical in our condition. (Vol.6).

3.3 Voices in the Journals of Agriculture

Voice refers to the ways in which a language expresses the relationship between a verb and the noun phrases associated with it. In other words, the term voice refers to the alternation in the form of verb phrases in pairs of sentences.

In English, there are two types of voices viz. active and passive. In a sentence having active voice the subject is generally a person or thing which performs or acts the action. For examples:

The truck killed the woman.
The woman was killed by the truck.

I observed two thousand seven hundred and twenty-eight sentences altogether to find the voices used in SJA, ADJ and NARJ. From the study, it was found that there was more frequent use of active voice than passive voice. The active voice covered 53.74 percent and the passive voice covered 46.26 percent in the whole.

The analysis and interpretation of voice used in SJA, ADJ and NARJ are given below:

3.3.1 Analysis of Voice Used in SJA, ADJ and NARJ.

Here, the voice used in SJA, ADJ and NARJ has been compared. The analysis in total has been given below including the comparison of voice used in the aforementioned agricultural journals.

Table No. 9

Voice Used in SJA, ADJ and NARJ

Voice Types	SJA		ADJ		NARJ		Total	
	Freq.	Per.	Freq.	Per.	Freq.	Per.	Freq.	Per.
Active	367	50.42	605	54.85	494	55.07	1466	53.74
Passive	361	49.58	498	45.15	403	44.93	1262	46.26
Total	728	100.00	1103	100.00	897	100.00	2728	100.00

The above table clearly reflects that the active voice has been used more frequently than passive in all aforementioned journals. The active in SJA, ADJ, and NARJ covered 50.42 percent, 54.85 percent and 55.07 percent respectively, which is more than half of the total sentences. Among all, there was more frequent use of the active voice in NARJ covering 55.07 percent while the least use of it was in SJA having 50.42 percent. However, it was more frequent than passive voice. Similarly, the passive voice in SJA, ADJ and NARJ covered 49.58 percent, 45.15 and 44.93 percent respectively. The less use of passive voice covering less frequency was found in agriculture of all above mentioned journals.

As a whole, it was found that the active voice was used more frequently than the passive voice. In total, the active voice covered 53.74 percent whereas the passive voice covered 46.26 percent.

Some examples of the active and passive voice used in SJA. ADJ and NARJ are given below:

a) The aphid is an extremely adaptable insect and under favorable conditions, can reproduce and build up high population densities extremely fast. (SJA, Vol. 3)

b) Farming in Nepal is labor intensive and employs 91 percent of economically active women and 72 percent of the men. (ADJ, Vol. 2)

c) In South Asia these systems have been practiced on about 13 million hectare. (SJA, Vol. 1)

d) Similar trend was found at Mona Sita. (SJA, Vol. 1)

In the example 'a' and 'b' given above, there is use of active voice because the person who does the action is more important than the action itself. But passive is used in the example 'c' and 'd' because there is more importance of the action itself than the person who does it.

3.3.2 Analysis of Voice Used in SJA

I observed the language used in SJA. From the careful study and observation of the selected texts, the following frequency of occurrences was found:

Table No. 10

Voice Used in SJA

Voice	Frequency	Percent
Active	367	50.42
passive	361	49.58
Total	728	100.00

It is clear from the above table that the active voice was found to have been used more frequently than the passive voice in the SJA. The active voice covered 50.42 percent (i.e. 367 out of 728) which is more than half of the total sentences. The passive voice covered 49.58 percent (i.e. 361 out of 728) which is less than half of the total sentences. The active and the passive sentences were found to be used almost equally.

Some example of voices, the active voice (a-b) and the passive voice (c-d) used in SJA are given below:

a) Rice-wheat cropping systems occupy twenty four million hectare of cultivated land in the Asian subtropics. (Vol. 1)

b) In rice ecosystems, predators play an important role to maintain the population/infestation of insect pests lower than economic threshold levels. (Vol. 2)

c) The distribution of land is skewed irrespective of locations. (Vol. 1)

d) Under favorable field conditions, mid western aphid numbers have been observed to double in about every 6-8 days. (Vol. 3)

3.3.3 Analysis of Voice Used in ADJ

I observed one thousand one hundred and three sentences altogether to find the voice used in ADJ. From the careful observation and analysis of the selected texts of ADJ, the following frequency of occurrences of voice was found:

Table No. 11

Voice Used in ADJ

Voice	Frequency	Percent
Active	605	54.85
Passive	498	45.15
Total	1103	100.00

The above table shows that the active voice was found to have been used more frequently than the passive voice. The active voice in ADJ covered 54.85 percent (i.e. 605 out of 1103) of the total, which is more than half of the total sentences. Similarly, the passive voice in ADJ covered 45.15 percent (i.e. 498 out of 1103), which is less than half of the total sentences.

Some examples of voices, active (a-b) and passive (c-d) used in ADJ are given below:

a) A glimpse of export and import in 2003/04 has shown that there is a negative balance of agriculture commodities in the country.

   (Vol. 2)

b) This again suggests for a heavy investment on agriculture research in order to have a positive balance of agricultural commodities in Nepal.

   (Vol. 2)

c) Nepal's resource base for agriculture is severely limited by the nature of the terrain. (Vol. 3)

d) Land fragmentation is considered one of the structural problems in habiting agricultural modernization. (Vol. 4)

3.3.4 Analysis of Voice Used in NARJ

I observed the language used in NARJ. Here, I observed eight hundred and ninety seven sentences altogether to find the voice and its frequency used in them, and found the following:

Table No.12

Voice Used in NARJ

Voice	Frequency	Percent
Active	584	65.11
Passive	313	34.89
Total	897	100.00

The study found that there was more use of the active voice than the passive voice which is clear from the above table. The active voice in NARJ covered

65.11percent (i.e. 584 out of 897), which is two-third of the total but there was less use of passive voice. It covered only 34.89 percent (i.e. 313 out of 897), which is nearly one-third of the total portion.

Some examples of active voice (a-b) and passive voice (c-d) used in NARJ are given below:

a) Mean body weight of both male and female turkey showed a tendency to increase from the date of hatch up to the 28 weeks of age. (Vol. 5)
b) We examined the pedigrees of 26 cultivars out of 35 released cultivars in Nepal (Vol. 4)
c) Potato cultivars including check cultivars were planted in 3.6m^2 plot size in three replications. (Vol. 6).
d) Analysis of variance was used for cultivating genotypic, phenotypic and environmental characters. (Vol.6)

3.4 Aspects Used in the Journals of Agriculture

Aspect refers to the internal structure of the action occurring at any time. It denotes to the manners in which a verbal actions is experienced, for example: whether it is considered completed or in progress. Verb phrases can be marked for two aspects: the perfective aspect and the progressive aspect. However, there are four aspects in English viz. simple, progressive, perfective and perfective progressive.

I went through all the selected texts in order to find out the aspects and their frequency used in SJA, ADJ and NARJ. I observed two thousand seven hundred and twenty-eight sentences altogether for the study. The frequency of distribution of aspects in the language of the concerned journals is mentioned below under different headings.

3.4.1 Analysis of Aspects Used in SJA, ADJ and NARJ

Here, the holistic analysis and interpretation of aspects used in SJA, ADJ, and NARJ has been done. I observed two thousand seven hundred and twenty-eight sentences altogether to find out the use of aspects.

Table No. 13

Aspects used in SJA, ADJ and NARJ.

Aspect	SJA		ADJ		NARJ		Total	
	Freq.	Per.	Freq.	Per.	Freq.	Per.	Freq.	Per.
Simple	693	95.19	1004	91.02	844	94.09	2541	93.14
Prog.	2	0.27	21	1.91	6	0.67	29	1.06
Perf.	33	4.54	71	6.43	46	5.13	150	5.50
Perf. Prog.	0	0	7	0.64	1	0.11	8	0.30
Total	728	100.00	1103	100.00	897	100.00	2728	100.00

This table shows that the simple aspect was found to have the most frequent use in all, covering 93.14 percent of the total sentences which is more than nine tenth of the whole portion.

Similarly, the progressive aspect and perfective aspect covered 1.06 percent and 5.50 percent respectively which were less frequently used than the simple aspect. In case of progressive and perfective aspects, the latter was more frequently used than the former. In the same way, perfective progressive aspect was found to have been used with the least frequency in SJA, ADJ and NARJ. It covered only 0.30 percent (i.e. 8 out of 2728) of the total.

In comparison the simple aspect in SJA was found to have been used with the highest frequency of all covering 95.19 percent of the total. The simple aspect in NARJ and ADJ covered the second and the third position with 94.09 percent

and 91.09 percent respectively. The progressive aspect was used with the highest frequency covering 1.91 percent (i.e. 21 out of 1103) of the total in ADJ. The progressive aspect in NARJ and SJA was used with 0.67 percent and 0.27percent respectively. The perfective aspect in ADJ had the highest frequency with 6.43 percent (i.e. 71 out of 1103). Likewise, the perfective aspect in NARJ and SJA were 5.13 percent (i.e. 46 out of 897) and 4.54 percent(i.e. 33 out of 728) occupied second and third position respectively. Similarly, regarding the perfective progressive aspect, it was found to have been used with the highest frequency in ADJ and the least frequency in NARJ covering 0.64 percent (i.e. 7 out of 1103) and 0.11 percent (i.e. 1 out of 897) respectively. Perfective progressive aspect was not found in SJA.

Some examples of the simple, progressive, perfective and perfective progressive aspects are given below:

a. Two bioassay methods for assessing resistance in two strains of Aphis gossypii to pyrethroids were examined. (SJA, Vol. 3)
b. Many efforts are being made to sustain high productivity of this system. (SJA, Vol. 2)
c. Most of the earlier studies have been related to harnessing the yield potential through fertilizer application. (NARJ, Vol. 5)
d. NMRP has been conducing field experiment in different regional/Agricultural research stations (R/ARS) across the country. (ADJ, Vol. 4)

The use of simple aspect in example 'a' given above is to express or show the general facts. Likewise, progressive aspect is used in example 'b' in order to show the incompleteness of action, which is somehow limited and allows further development. Similarly, there is use of perfective aspect in example 'c' in order to show the action is already completed. In the same way, in above

given example 'd' perfective progressive aspect is used to indicate the action which began in the past and is still continuing.

3.4.2 Analysis of Aspects Used in SJA

I observed seven hundred and twenty-eight sentences from the selected texts of agricultural journals. The frequency of occurrences of the aspects used in SJA is given below.

Table No. 14

Aspect Used in SJA

Aspect Types	Frequency	Percent
Simple	693	95.19
Progressive	2	0.27
Perfective	33	4.54
Perfective progressive	0	0
Total	728	100.00

The above table shows that the simple aspect was found to have been used more frequently than the rest of other aspects. The simple aspect occupied 95.19 percent (i.e. 693 out of 728) which is more than nine-tenth of the total. Similarly, the progressive aspect occupied the 0.27 percent (i.e. 2 out of 728) which is the least frequency and the perfective aspect occupied 4.54 percent (i.e. 33 out of 728) of the total, which is in the second position of frequency. In this journal, I found no use of perfective progressive aspect at all.

Some instances of the aspects, simple (a-b), progressive (c), perfective (d-e) used in SJA are given below:

a. Five sampling sites were selected diagonally in each field. (Vol. 1)

b. A second visit was made to some households for collecting missing information. (Vol. 3)

c. Out of which 61 percent is lying only in Rajasthan (Vol. 2).

d. In estimating loss due to goat mortality, only direct financial loss has been calculated. (Vol. 3)

e. Even though some improvements in a few characteristics of cotton have been made, quality and yield need further improvement. (Vol. 1)

3.4.3 Analysis of Aspects Used in ADJ

In this section, the language used in ADJ has been analyzed to find out the use of aspects in them. For this study, I observed one thousand one hundred and there sentences from selected texts from ADJ and found the following frequency of the occurrences of the aspects.

Table No. 15

Aspects Used in ADJ

Aspect Types	Frequency	Percent
Simple	1004	91.02
progressive	21	1.91
Perfective	71	6.43
Perfective progressive	7	0.64
Total	1103	100.0

The above table shows that the simple aspect was used more frequently than other aspects. The simple aspect covered 91.12 percent (i.e. 1004 out of 1103). Similarly, perfective aspect was used more frequently than progressive and perfective progressive aspects covering 6.43 percent (i.e. 71 out of 1103), 1.91 percent (i.e. 21 out of 1103) and 0.64 percent (i.e. 7 out of 1103) respectively.

Some examples of the aspects, simple (a-b), progressive (c-d), perfective (e-f) and perfective progressive (g-h) used in ADJ are given below:

a) There are inadequate effective standard setting agencies in case of apicultural products. (Vol. 4)

b) As unjustified requirements are removed, these costs will be reduced. (Vol. 3)

c) This is happening on a world scale as well (Vol. 4)

d) Importing countries are still requiring exporting countries to provide assurances that are not justified. (Vol. 4)

e) Research and extension activities have been emphasized in the plan and policy. (Vol.2)

f) NARC has recommended many crop varieties in the country. (Vol. 3)

g) These have been doing or in one way or other way as a means of technology generation, testing and verification in farmers' field. (Vol. 3)

h) NMRP,Rampur has been conducting on farm testing experiments at Sukranagar.

3.4.4 Analysis of Aspects Used in NARJ

I analyzed twelve judgmentally selected texts of NARJ to find out the aspects used in it. I observed eight hundred and ninety-seven sentences. The following table shows the aspects used in NARJ.

Table No. 16

Aspects Used in NARJ

Aspect Types	Frequency	Percent
Simple	844	94.09
Progressive	6	0.67
Perfective	46	5.13
Perfective progressive	1	0.11
Total	897	100.00

The above table clearly displays that the simple aspect has been used with the highest frequency like in other two journals viz. SJA and ADJ. It occupied 94.09 percent (i.e. 844 out of 897) of the total. While comparing progressive with perfective aspect, the latter occupied more frequency of occurrences than the former. The progressive aspect occupied 0.67 percent (i.e. 6 out of 897) and perfective aspect occupied 5.13 percent (i.e. 46 out of 897) frequency of occurrences of all. Similarly, there was the least use of perfective progressive aspect in NARJ, which covered 0.11 percent (i.e. 1 out of 897) only.

Some examples of the aspects, simple (a-b), progressive (c-d), perfective (e) and perfective progressive (f) are given below:

a. Genetic variation is required in a breeding program to achieve genetic goats. (Vol. 6)
b. Prevailing of such situations did considerable damage to thee rice crop stand. (Vol.4)
c. Tomato cultivation in rainy season is being endangered and is becoming less profitable because of tomato yellow leaf curl virus infection. (Vol. 4)

d. Turkey production is growing globally with an average annual growth rate of 3percent (Vol.6)
e. Most of the earlier studies have been related to harnessing the yield potential through fertilizer application. (Vol.5)
f. However, modern verities have been replacing the landraces and improved old verities resulted in the genetic erosion. (Vol. 5)

3.5 Special Vocabularies Used in the Journals of Agriculture

Words are the building blocks of language. In another way, we can say that words are bricks of a language. In the absence of bricks, one cannot make his/her house. So, one cannot communicate if he/she lacks vocabularies. Word is the most important unit of language. Every sentence is made out of words. Vocabulary generally refers to the words containing in a language having their own identical meaning and have dictionary meaning. Vocabulary includes words, lexis or word power. They are vital organs and the flesh to manipulate the proper status and convey the message in proper situation. Word meaning, word use, word formation and word grammar are the aspects of vocabulary in language teaching.

In this section, my concern was of specific vocabularies that were found only in specific field (i.e. Register). Therefore, I analyzed the vocabulary used in SJA, ADJ and NARJ. So, the number of specific words in each and every sentence is listed and analyzed to find their word-class with the number of occurrences. Then, all words are tabulated mentioning the category like, noun, verb, adjective and adverb, and the frequency of each journal followed by their cumulative presentation.

3.5.1 Analysis of Special Vocabularies Used in SJA, ADJ and NARJ

I observed thirty-six texts to find out the use of special vocabularies in above mentioned journals. The number of vocabularies found in above mentioned journals has been listed below showing their major word class and frequency. I observed two thousand seven hundred and twenty-eight sentences altogether to find out the required information. The special vocabularies that were found in the above mentioned journals are as follows:

Table No. 17

Analysis of Special Vocabularies Used in SJA, ADJ and NARJ

S.N.	Word Class	SJA	ADJ	NARJ	Total
		Freq.	Freq.	Freq.	
1	Nouns	77	92	69	238
2	Verbs	8	9	8	25
3	Adjectives	17	11	13	41
4	Adverbs	-	-	-	-
Total		102	112	90	304

(The list of Special Vocabularies is given in Appendix- A)

3.5.2 Analysis of Special Vocabularies Used in SJA

I observed the specific vocabularies used in twelve texts of SJA to find out the frequency in terms of noun, verb, adjective and adverb. I observed seven hundred and twenty-eight sentences from judgmentally selected texts of above mentioned journals. The analysis and interpretation of total words has been done here.

Table No.18

Special Vocabularies Used in SJA

S.N.	Word Class	Total Words
1	Nouns	77
2	Verbs	8
3	Adjectives	17
4	Adverbs	_
Total		102

(The list of special vocabularies is given in Appendix- B)

The total number of special vocabularies used in SJA was one hundred and two. Among them 77, 8 and 17 were nouns, verbs and adjectives respectively. Altogether, nouns occupied the highest and verbs had the least frequency.

3.5.3 Analysis of Special Vocabularies Used in ADJ

I observed the special vocabularies in ADJ to find out word class in terms of noun, verb, adjective and adverb only. The total sentences that I observed were one thousand one hundred and three. The analysis and interpretation of noun, verbs adjective and adverb has been done here.

Table No.19

Special Vocabularies Used in SJA

S.N.	Word Class	Total Words
1	Nouns	92
2	Verbs	9
3	Adjectives	11
4	Adverbs	_
Total		112

(The list of special vocabularies is given in Appendix- C)

In the texts of ADJ, I found one hundred and twelve words which were related to the agriculture. Among them, only nine and eleven words were verbs and adjectives respectively and the rest of them were nouns. Nouns occupied the highest frequency whereas adjectives and verbs occupied the second and third position respectively.

3.5.4 Analysis of Special Vocabularies Used in the NARJ

Here, I observed eight hundred and ninety seven sentences of NARJ to find out the special vocabularies used in the journals of agriculture. I observed twelve texts of above mentioned journals. Here, the analysis and interpretation of noun, verb, adjective and adverb have been done.

Table No. 20

Analysis of Special Vocabularies Used in NARJ

S.N.	Word Class	Total Words
1	Nouns	69
2	Verbs	8
3	Adjectives	13
4	Adverbs	_
Total		90

(The list of special vocabularies is given in Appendix- D)

In the text of NARJ, I found ninety words which were related to agriculture. Among them, sixty-nine words were nouns with the highest frequency. Similarly, adjectives and verbs were thirteen and eight respectively with less frequency in comparison to noun.

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CHAPTER FOUR

FINDINGS AND RECOMMENTDATIONS

The main aim of the study was to find out the language used in the journals of agriculture in terms of sentence types (Simple, compound and complex), tense (past and non-past), voice (active and passive), aspect (simple, perfective, progressive, and perfective progressive) and listing special vocabularies with their word-class and frequency. For this, three agricultural journals viz. *SAARC Journal of Agriculture* (Vol. 1, 2, 3), *Agricultural Development Journal* (Vol. 2, 3, 4) and *Nepal Agriculture Research Journal (*Vol.4, 5, 6) were selected. Twelve purposively selected texts form each issue of the above mentioned journals (altogether thirty -six texts) were observed and re-observed to get the required data. The data were carefully presented in tables then analyzed and interpreted under different headings and sub-headings, using simple statistical tools like frequency, percentage to accomplish the desired objectives. From the analysis, the following findings are derived.

4.1 Findings

On the basis of analysis and interpretation of data from the selected journals, the findings of the study are summarized in the following different sub-headings:

4.1.1 Sentence Types

The language used in the journals of agriculture has been found to have its own structure, tense, voice, aspect, different events, justification, different general pattern, which made the language used in agriculture different form others. So, the language used in the agriculture is a register.

Regarding the findings of sentence types, complex sentences have been used in the highest ratio in the journals of agriculture covering 55.42 percent which is more than

half of the total sentences. Compound sentences have been found in second position covering 24.01percent which is nearly one-fourth of the total sentences. Similarly, simple sentences have been found in the last position (nearly compound sentences) of occurrences covering only 20.57 percent, which is one-fifth of the total portion.

4.1.2 Tense Types

In the use of tense, the past tense was found to have been highly used in comparison to non-past tense. Though the non-past tense includes present and future time, there is more use of the past tense. The past tense was found to have covered 64.18 percent, which is nearly two-third of the total portion. Similarly, the non-past tense covered only 35.82 percent, which is one-third of the total portion.

4.1.3 Voice Types

In the case of voice, there was more use of active voice than passive voice in the journals of agriculture. The same case was found in all the three journals of agriculture. The active voice was used more frequently in SJA, ADJ and NARJ covering 50.42 percent, 54.85 percent and 55.07 percent respectively. And the passive voice was found to have been used less frequently.

4.1.4 Aspect Types

Regarding the use of aspects, the simple aspect was maximally used in the above mentioned journals of agriculture covering 93.14 percent. The perfective aspect was more frequently used than the progressive and perfective progressive aspect. There is no use of perfective progressive aspect in the SJA.

4.1.5 Vocabularies

The use of technical vocabularies, unfamiliar abbreviations, used in the above mentioned journals are different from other fields. So, the language used in agriculture has its own register. The language of agriculture is not so difficult but technical

terminologies and abbreviations are very tough to understand for one who is not familiar with the language of this field. Three hundred and four special vocabularies were found in the journals of agriculture in those limited texts.

In terms of word class, most of the words were found to be nouns. Verbs and adjectives were also found in a limited number but I could not find any adverb related to agriculture as special vocabularies. Only forty-four words were found repeatedly used in all the journals and most of them were nouns.

The list of vocabularies is given in appendix.

4.2 Recommendations and Pedagogical Implications

On the basis of the findings of the study, some recommendations have been suggested, which are as follows:

i. I found that the language used in the journals of agriculture in terms of sentence types, tense, voice, aspect and special vocabularies is significantly different from the language of other fields.

ii. It was found that most of the texts have been found to have written in the complex sentences, the past tense, active voice and simple aspect. So, while teaching special focus should be given to such aspects.

iii. The curriculum designers and textbook writers should include the agricultural texts in both school and higher level while preparing or developing teaching materials for general courses and especially for ESP Courses.

iv. The teachers should give their special attention in the particular use of different agricultural terms while teaching their students, so that the students will be conscious about specific use.

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APPENDIX- A

Special Vocabularies Used in SJA, ADJ AND NARJ

Vocabulary	Word class	SJA	ADJ	NARJ	Total
Acres	Noun	3	7	-	10
Adopt	Verb	13	9	2	24
Agricultural	Adjective	2	33	-	35
Agriculture	Noun	3	32	2	37
Agronomic	Adjective	-	-	5	5
Agro ounce	Adjective	2	-	-	2
Antibiotics	Noun	1	7	-	8
Aphid	Noun	13	5	2	20
Area	Noun	4	26	2	32
Bari land	Noun	-	4	-	4
Barkhe	Adjective	-	2	-	2
Bhakari	Noun	-	3	-	3
Bio-physical	Adjective	2	7	1	10
Bio-chemical	Adjective	4	-	2	6
Bio-gas	Noun	-	2	-	2
Biomass	Noun	-	-	8	8
Bloat	Verb	1	-	-	1
Breeding	Verb	-	-	13	16
Cash crop	Noun	-	2	-	2
Cattle	Noun	5	19	9	33
Chaite	Adjective	-	3	-	3
Chemical	Noun	13	21	8	42
Climate	Noun	2	3	-	5
Climatic	Adjective	1	-	8	9
Clones	Noun	5	-	-	5

Compost	Noun	2	1	-	3
Cottonseed	Noun	30	18	25	73
Consumers	Noun	1	-	2	3
creals	Noun	2	13	5	20
Crops	Noun	4	35	9	48
Crossbred cattle	Noun	4	-	-	4
Cucurbitacea	Noun	1	-	-	1
Cultivars	Noun	23	61	79	163
Cultivated	Verb	-	7	1	8
Cultivating	Verb	1	-	-	1
Cultivation	Noun	3	25	2	30
Day-labours	Noun	2	-	-	2
Decomposed	Adjective	1	-	-	1
Degenerated	Adjective	-	-	3	3
Degeneration	Noun	-	4	-	4
Diploid	Adjective	-	-	2	2
Disease	Noun	31	7	15	53
Disposable	Adjective	2	-	-	2
Domestic	Adjective	-	1	-	1
Drought	Noun	-	6	-	6
Dry season	Noun	-	3	-	3
Dung	Noun	-	2	-	2
Ecological	Adjective	2	11	4	17
Entomologist	Noun	1	-	-	1
Epidemic	Noun	1	7	3	11
Erosion	Noun	-	7	-	7
Farm	Noun	11	20	13	44
Farm land	Noun	-	3	-	3
Farmer	Noun	5	82	19	106
Farming	Noun	13	33	6	52

Farmyard	Noun	3	7	1	11
Fatal	Adjective	1	-	-	1
Fatality	Noun	6	2	3	11
Fertility	Noun	10	7	4	21
Fertilized	Verb	-	-	5	5
Fertilizer	Noun	2	13	18	33
Fibre	Noun	1	-	-	1
Financial loss	Noun	4	-	-	4
Food	Noun	13	22	2	37
Food-deficit	Noun	-	1	-	1
Frieswal heifers	Noun	4	-	-	4
Fruits	Noun	9	17	25	51
Fungi	Noun	-	-	1	1
Gene	Noun	-	-	13	13
Genetic	Adjective	-	-	34	34
Genotypes	Noun	-	-	20	20
Genotypic	Adjective	-	-	7	7
Germination	Noun	-	-	1	1
Grain	Noun	26	11	9	46
Groove	Noun	-	23	-	23
Grower	Noun	-	6	2	8
Grow	Verb	-	-	1	1
Growth	Noun	-	2	1	3
Hailstorm	Noun	-	4	-	4
Harvest	Noun	4	13	9	26
Harvesting	Noun	1	22	13	45
Hatch	Verb	-	-	1	1
Hectares	Noun	3	13	7	23
Heifers	Noun	13	-	-	13
Herd	Noun	4	-	-	4

Hired	Adjective	-	1	-	1
Hiunde	Adjective	-	2	-	2
Horticulture	Noun	-	5	-	5
Hybrid	Adjective	-	14	-	14
Infected	Adjective	-	-	1	1
Insect	Noun	15	13	9	37
Insecticide	Noun	1	9	3	13
Intercropped	Verb	-	2	-	2
Intercrops	Noun	2	23	7	32
Irradicated	Verb	5	-	-	5
Irrigated	Verb	3	2	-	5
Irrigation	Noun	-	4	1	5
Kamaiya	Noun	-	3	-	3
Kunyu	Noun	-	3	-	3
Labour	Noun	-	11	2	13
Land	Noun	-	9	-	9
Land holding	Noun	1	2	-	3
Land-degradation	Noun	-	4	-	4
Land races	Noun	-	-	6	6
Leaf-dipping	Noun	1	-	-	1
Legumes	Noun	-	7	28	35
Lint index	Noun	8	-	-	8
Livestock	Noun	13	27	7	47
Low land seedling	Noun	-	1	-	1
Malnutrition	Noun	3	1	5	9
Mandarin	Noun	-	37	-	37
Maturity	Noun	-	-	2	2
Menace	Verb	1	-	-	1
Mineralization	Noun	-	1	-	1
Moistened	Adjective	1	-	-	1

Morbidity	Noun	3	-	-	3
Monsoon	Noun	-	1	-	1
Mortality	Noun	20	-	3	23
Mutants	Noun	15	-	7	22
Nematodes	Noun	11	-	-	11
Nitrogen	Noun	1	-	1	2
Nutrient	Noun	-	2	3	5
Oestrus	Noun	18	-	-	18
Oxidase	Noun	1	-	-	1
Pedigree	Noun	-	-	9	9
Pesticides	Noun	2	11	-	13
Pests	Noun	7	3	-	10
Phenotypic	Adjective	-	-	5	5
Phosphate	Adjective	-	-	1	1
Phosphorus	Noun	5	-	-	5
Phyto-nematodes	Noun	2	-	-	2
Plant	Noun	9	49	18	76
Pathogens	Noun	1	-	8	8
Planted	Verb	-	-	7	7
Plastic roof	Noun	-	11	-	11
Plot	Noun	-	12	6	18
Potash	Noun	1	-	1	2
Pouts	Noun	-	-	4	4
Prevalence	Noun	6	-	-	6
Production	Noun	6	-	-	6
Produced	Verb	2	52	6	60
Productive	Adjective	1	7	2	10
Products	Noun	11	19	10	40
Rectum	Noun	1	-	-	1
Rain	Noun	-	2	-	2

Rainfall	Noun	-	3	-	3
Rainy	Adjective	3	5	-	8
Ripening	Adjective	1	-	-	1
Road-alignment	Noun	-	1	-	1
Ropani	Noun	2	10	7	19
Rotten	Adjective	1	-	-	1
Scarcity	Adjective	-	4	-	4
Season	Noun	9	13	2	24
Seed	Noun	11	31	2	46
Silage	Noun	2	-	-	2
Skewed	Verb	-	6	2	8
Skin	Noun	-	-	10	10
Soil	Noun	19	13	8	40
Solar	Noun	-	1	-	1
Sow	Verb	3	2	-	5
Staple creals	Noun	-	1	-	1
Stunting	Adjective	1	-	-	1
Suli	Noun	-	2	-	2
Summer	Noun	-	1	2	2
Symbiotic	Noun	-	-	1	1
Synergistic	Adjective	1	-	-	1
Tar	Noun	-	1	-	1
Thakro	Noun	-	11	-	11
Tillage	Noun	7	29	15	51
Tropical	Adjective	-	-	1	1
Tuber	Noun	5	-	8	13
Vegetative	Adjective	4	-	-	4
Veterinary	Noun	8	-	-	8
Vegetable	Noun	3	29	7	39
Water	Noun	-	11	-	11

Wetland	Noun	-	5	-	5
Winter	Noun	-	-	1	1
Work	Noun	2	6	17	25
Workers	Noun	-	5	-	5
Working	Verb	-	11	-	11
Wades	Noun	-	2	-	2
Tenant	Noun	2	13	5	20
Land owner	Noun	-	7	-	7
Urea	Noun	-	1	-	1

APPENDIX-B

Special Vocabularies Used in SJA

Vocabulary	Word Class	Frequency
Acres	Noun	3
Adopt	Verb	13
Agricultural	Adjective	2
Agriculture	Noun	3
Agronounce	Adjective	2
Antibiotics	Noun	1
Aphid	Noun	13
Area	Noun	4
Bio-physical	Adjective	2
Bio-chemical	Adjective	4
Bloat	Verb	1
Cattle	Noun	5
Chemical	Noun	13
Climate	Noun	2
Climatic	Adjective	1
Clones	Noun	5
Compost	Noun	2
Cotton seed	Noun	30
Consumers	Noun	1
Cereals	Noun	2
Crops	Noun	4
Cross bred cattle	Noun	4
Cucurbitaceous	Noun	1
Cultivars	Noun	23
Cultivating	Verb	1
Cultivation	Noun	3
Day-labours	Noun	2

Decomposed	Adjective	1
Disease	Noun	31
Disposable	Adjective	2
Ecological	Adjective	2
Entomologist	Noun	1
Epidemic	Noun	1
Farm	Noun	11
Farmer	Noun	5
Farming	Noun	13
Farmyard	Noun	3
Fatal	Adjective	1
Fatality	Noun	6
Fertility	Noun	10
Fertilizer	Noun	2
Fibre	Noun	1
Financial loss	Noun	4
Food	Noun	13
Frieswal heifers	Noun	4
Fruits	Noun	9
Grain	Noun	26
Harvest	Noun	4
Harvesting	Noun	1
Hectare	Noun	3
Heifers	Noun	13
Herd	Noun	4
Insect	Noun	15
Insecticide	Noun	1
Intercrops	Noun	2
Irradicated	Verb	5
Irrigated	Verb	3

Land holding	Noun	1
Leaf-dipping	Noun	1
Lint index	Noun	8
Live stock	Noun	13
Malnutrition	Noun	3
Menance	Verb	1
Moistened	Adjective	1
Morbidity	Noun	3
Mortality	Noun	20
Mutants	Noun	15
Nematodes	Noun	11
Nitrogen	Noun	1
Oestrus	Noun	18
Oxidase	Noun	1
Pesticides	Noun	2
Pests	Noun	7
Phosphorus	Noun	5
Phyto-nematodes	Noun	2
Plant	Noun	9
Pathogens	Noun	1
Potas	Noun	1
Prevalence	Noun	6
Produced	Verb	6
Production	Noun	2
Productive	Adjective	1
Products	Noun	11
Ractum	Noun	1
Rainy	Adjective	3
Ripening	Adjective	1
Ropani	Noun	2

Rotten	Adjective	1
Season	Noun	9
Seed	Noun	11
Silage	Noun	2
Soil	Noun	19
Sow	Verb	3
Stunting	Adjective	1
Synergistic	Adjective	1
Tuber	Noun	5
Vegetative	Adjective	4
Veterinary	Noun	8
Vegetable	Noun	3
Work	Noun	2
Tenant	Noun	2
Total		**102**

APPENDIX-C

Special Vocabularies in ADJ

Vocabulary	Word Class	Frequency
Acres	Noun	7
Adopt	Verb	9
Agricultural	Adjective	33
Agriculture	Noun	32
Antibiotics	Noun	7
Aphid	Noun	5
Area	Noun	26
Bari land	Noun	4
Barkhe	Adjective	2
Bhakari	Noun	3
Bio-physical	Adjective	7
Bio-gas	Noun	2
Breeding	Verb	55
Cash crop	Noun	2
Cattle	Noun	19
Chaite	Adjective	3
Chemical	Noun	21
Climate	Noun	3
Compost	Noun	1
Cotton seed	Noun	18
Creals	Noun	13
Crops	Noun	35
Cultivars	Noun	61
Cultivated	Verb	7
Cultivation	Noun	25
Degeneration	Noun	4

Disease	Noun	7
Domestic	Adjective	1
Drought	Noun	6
Dry season	Noun	3
Dung	Noun	2
Ecological	Adjective	11
Epidemic	Noun	7
Erosion	Noun	7
Farm	Noun	20
Farmland	Noun	3
Farmer	Noun	82
Farming	Noun	33
Farmyard	Noun	7
Fatality	Noun	2
Fertility	Noun	7
Fertilizer	Noun	13
Food	Noun	22
Food-deficit	Noun	1
Fruits	Noun	17
Grain	Noun	11
Groove	Noun	23
Grow	Verb	6
Growth	Noun	2
Hailstorm	Noun	4
Harvest	Noun	13
Harvesting	Noun	22
Hectare	Noun	13
Hired	Adjective	1
Hiunde	Adjective	2
Horticulture	Noun	5

Hybrid	Adjective	14
Insect	Noun	13
Insecticide	Noun	9
Intercropped	Verb	2
Intercrops	Noun	23
Irrigated	Verb	2
Irrigation	Noun	4
Kamaya	Noun	3
Kunyu	Noun	3
Labour	Noun	11
Land	Noun	9
Landholding	Noun	2
Land-degradation	Noun	4
Lagumes	Noun	7
Livestock	Noun	27
Low-land seedling	Noun	1
Malnutrition	Noun	1
Mandarin	Noun	37
Mineralization	Noun	1
Monsoon	Noun	1
Nutrient	Noun	2
Pesticides	Noun	11
Pests	Noun	3
Plant	Noun	49
Plastic roof	Noun	11
Plot	Noun	12
Production	Noun	52
Productive	Adjective	7
Products	Noun	19
Rain	Noun	2

Rainfall	Noun	3
Rainy	Adjective	5
Road-alignment	Noun	1
Ropani	Noun	10
Scarcity	Adjective	4
Season	Noun	13
Seed	Noun	31
Skewed	Verb	6
Soil	Noun	13
Solar	Noun	1
Sow	Verb	2
Staple creals	Noun	1
Suli	Noun	2
Tar	Noun	1
Thakro	Noun	11
Tillage	Noun	29
Vegetable	Noun	29
Water	Noun	11
Wet land	Noun	5
Work	Noun	6
Workers	Noun	5
Working	Verb	11
Wages	Noun	2
Tenant	Noun	13
Landowner	Noun	7
Urea	Noun	1
Total		**112**

APPENDIX - D

Special Vocabularies Used in NARJ

Vocabularies	Word Class	Frequency
Adopt	Verb	2
Agriculture	Noun	2
Agronomic	Adjective	5
Aphid	Noun	2
Area	Noun	2
Bio-physical	Adjective	1
Bio-chemical	Adjective	2
Biomass	Noun	8
Breeding	Verb	13
Cattle	Noun	9
Chemical	Noun	8
Climatic	Adjective	8
Cotten seed	Noun	25
Consumers	Noun	2
Creals	Noun	5
Crops	Noun	9
Cultivars	Noun	79
Cultivated	Verb	1
Cultivation	Noun	2
Degenerated	Adjective	3
Diploid	Adjective	2
Disease	Noun	15
Ecological	Adjective	4
Epidemic	Noun	3
Farm	Noun	13
Farmer	Noun	19
Farming	Noun	6
Farmyard	Noun	1

Fatality	Noun	3
Fertility	Noun	4
Fertilized	Verb	5
Fertilizer	Noun	18
Food	Noun	2
Fruits	Noun	25
Fungi	Noun	1
Gene	Noun	13
Genetic	Adjective	34
Genotypes	Noun	20
Genotypic	Adjective	7
Germination	Noun	1
Grain	Noun	9
Grow	Verb	2
Grower	Noun	1
Growth	Noun	1
Harvest	Noun	9
Harvesting	Noun	13
Hatch	Verb	1
Hectare	Noun	7
Infected	Adjective	1
Insect	Noun	9
Insecticide	Noun	3
Intercrops	Noun	7
Irrigation	Noun	1
Labor	Noun	2
Landraces	Noun	6
Legumes	Noun	28
Livestock	Noun	7
Malnutrition	Noun	5
Maturity	Noun	2
Mortality	Noun	3

Mutants	Noun	7
Nitrogen	Noun	1
Nutrient	Noun	3
Pedigree	Noun	9
Phenotypic	Adjective	5
Phosphate	Noun	1
Plant	Noun	18
Pathogens	Noun	8
Planted	Verb	7
Plot	Noun	6
Potas	Noun	1
Poults	Noun	4
Production	Noun	6
Productive	Adjective	2
Products	Noun	10
Ropani	Noun	7
Season	Noun	2
Seed	Noun	2
Skewed	Verb	2
Skin	Noun	10
Soil	Noun	8
Summer	Noun	2
Symbiotic	Noun	1
Tillage	Noun	15
Tropical	Adjective	1
Tuber	Noun	8
Vegetable	Noun	7
Winter	Noun	1
Work	Noun	17
Tenant	Noun	5
Total		**90**