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# Ethnobotanical documentation of traditional knowledge about ethnoveterinary medicinal plants used by indigenous people in the Shekhawati region of Rajasthan, India

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## ABSTRACT

Ethnoveterinary medicine is an additional name of traditional method for treating animals which offers less expensive options when western-style medications and veterinary treatments, are either unavailable or prohibitively expensive. In Rajasthan's Shekhawati region, livestock production is an important agricultural sector. In addition to giving rural families financial support and social depression prevention, it also provides nutrient-rich food products. Because of the long-standing triangle that exists among humans, animals and plants, there are rich traditions of ethnoveterinary knowledge all around the world as a result of the close interactions. Rich ethnoveterinary practices still exist in the study area due to the region's unusual combination of a primarily agricultural basis.

In the current study, we examined the ethnoveterinary uses of 20 medicinal plant species from 15 families for treating common livestock ailments.

Figures : 04 References : 16 Table : 01
KEY WORDS : Ethnoveterinary, Indigenous, Livestock, Plants, Traditional knowledge

## Introduction

The environment has shaped and been linked to the evolution of human existence were culture, either directly or indirectly. Primitive people were primarily dependent on nature for their survival and live in intimate relationship with it. Because of their reliance on the nearby plants, they learned the useful and therapeutic qualities of numerous plants *via* trial and error. As a result, they developed into a repository for information about several beneficial and dangerous plants, which was gathered and enhanced overtime and transmitted orally from one generation to the next without the need for written records. In the world, about 75% - 90% of rural residents still get their medical care from herbal remedies. Herbal medicine has a long history and is still used today in many African and South American nation, as well as Chiana and India. Medicinal plants are often sold alongside vegetable and other goods in village markets[10].

Many societies still rely primarily on plants for medical treatment, and traditional medical systems have historically used medicinal plants. Since the beginning of civilization, people have utilised herbal treatment to treat a variety of illnesses in their domesticated animals. This approach of ethnoveterinary medicine is founded on customs, tradition and technique that have been utilised for centuries to treat illness and preserve the health of animals. There is no one denying the

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**TABLE-1: List of plants used as ethno-veterinary medicine**

| S. No. | Botanical name | Family | Common name | Parts used | Habit | Ethnoveterinary uses |
|---|---|---|---|---|---|---|
| **1.** | *Abutilon indicum* | Malvaceae | Kanghi | Leaves and seed | Shrub | Use for relief in constipation, cure haematuria, diarrhoea, dysentery and use in foot, mouth disease[12]. |
| **2.** | *Acacia nilotica* Sub sp. *Indica* | Fabaceae | Babool | Thorns | Tree | Use in easy removal of placenta after delivery and gastric problem[6]. |
| **3.** | *Achyranthes aspera* | Amaranthaceae | Adhijhara | Whole plant | Herb | Use to cure stomachache, curing opacity of cornea and delivery[11]. |
| **4.** | *Aerva persica* | Amaranthaceae | Safed bui | Whole plant | Herb | Use to cure foot, mouth disease and digestive disorders[2]. |
| **5.** | *Allium cepa* | Liliaceae | Safedkanda | Whole plant | Herb | Use in Febrifuge[11]. |
| **6.** | *Allium sativum* | Liliaceae | Lahsun | Bulb | Herb | Use in Gastric problem[11]. |
| **7.** | *Azadirachta indica* | Meliaceae | Neem | Leaves | Tree | Use in foot, mouth disease, wounds and poisonous bite[12]. |
| **8.** | *Calotropis procera* | Asclepiadaceae | Akra | Latex | Shrub | Used as an antidote to scorpion bite, wound healing, khurpaka and gingivitis[11,5]. |
| **9.** | *Capparis decidua* | Capparaceae | Ker | Stem | Shrub | Used in healing of fractured bone[2]. |
| **10.** | *Celosia argentea* | Amaranthaceae | Gorkha | Roots | Herb | Used in treating food-poisoning and emergence of placenta after delivery[13]. |
| **11.** | *Citrullus colocynthis* | Cucurbitaceae | Gad-tumba | Roots | Herb | Used to cure constipation, abdomen pain and skin infection[11]. |

| S. No. | Botanical name | Family | Common name | Parts used | Habit | Ethnoveterinary uses |
|---|---|---|---|---|---|---|
| **12.** | *Cocculus pendulus* | Menispermaceae | Pilwan | Stem | Climber | Used to treat mastitis[2]. |
| **13.** | *Dalbergia sissoo* | Fabaceae | Tali | Leaves | Tree | Used to cure dysurea[3]. |
| **14.** | *Euphorbia hirta* | Euphorbiaceae | Dudhi | Whole plant | Herb | Used to treat diarrhoea[14]. |
| **15.** | *Leucas aspera* | Lamiaceae | Dargal | Whole plant | Herb | Used in treating fever, wound and jaundice[12]. |
| **16.** | *Ricinus communis* | Euphorbiaceae | Arandi | Seed oil | Shrub | Used to treat throat disease[6]. |
| **17.** | *Tecomella undulata* | Bignoniaceae | Rohida | Bark | Tree | Used to cure rashes on skin[6]. |
| **18.** | *Tridax procumbens* | Asteraceae | Kumra | Leaves | Herb | Used to treat diarrhoea and eye infection[12]. |
| **19.** | *Tribulus terrestris* | Zygophyllaceae | Gokhru | Whole | Herb | Used to cure chronic cough and useful in strangury[14]. |
| **20.** | *Withania somnifera* | Solanaceae | Ashwagandha | Tubers | Shrub | Used to treat lumbago and fever[12]. |

importance of ethnoveterinary medicine in the growth of livestock, as many rural residents cure their domestic animals using native herbal remedies [1,2,7,9]. In tribal life, domestic animals are vital for milk, food, fat, leather, and transportation. Through extended periods of trials and error spanning multiple historical eras, early human acquired diverse proficiencies in the management of their domestic animals, employing plant-based remedies to promote well-being and heal ailments. Eventually, through trial and error, ethnoveterinary medicine developed to become as sophisticated as it is today[16]. The Atharvaveda has a wealth of traditional Indian medicine instructions for treating a wide range of animal ailments. Shalihotra may have been the first veterinarian in prehistoric times, according to certain evidence. Archeological finds, decrees, and ancient books, such as the Devipurana, Agnipurana, Garudpurana, Skandapurana, Matsyapurana, Lingapurana, Charaka Samhita, and works by Palakapya and Shalihotra, have chronicled several animal therapy practices and treatments[15]. When the initial Western medication was developed, many ethnoveterinary treatments overlooked. The discovery of several useful ethnoveterinary products has led to a significant increase in the relevance of ethnoveterinary technique throughout the past ten years[8]. Traditional veterinary medicines provide a cheap therapy and radially available than western drugs[4]. The purpose of this article is to compile data regarding Shekhawati current state of folk veterinary knowledge.

## Material and Methods

**The study area :** The Shekhawati region is located in northeastern Rajasthan. On the Rajasthan state map, the Shekhawati region extends from 27°7' to 28°53' N latitude and 75°41' to 76°05'E longitude. The

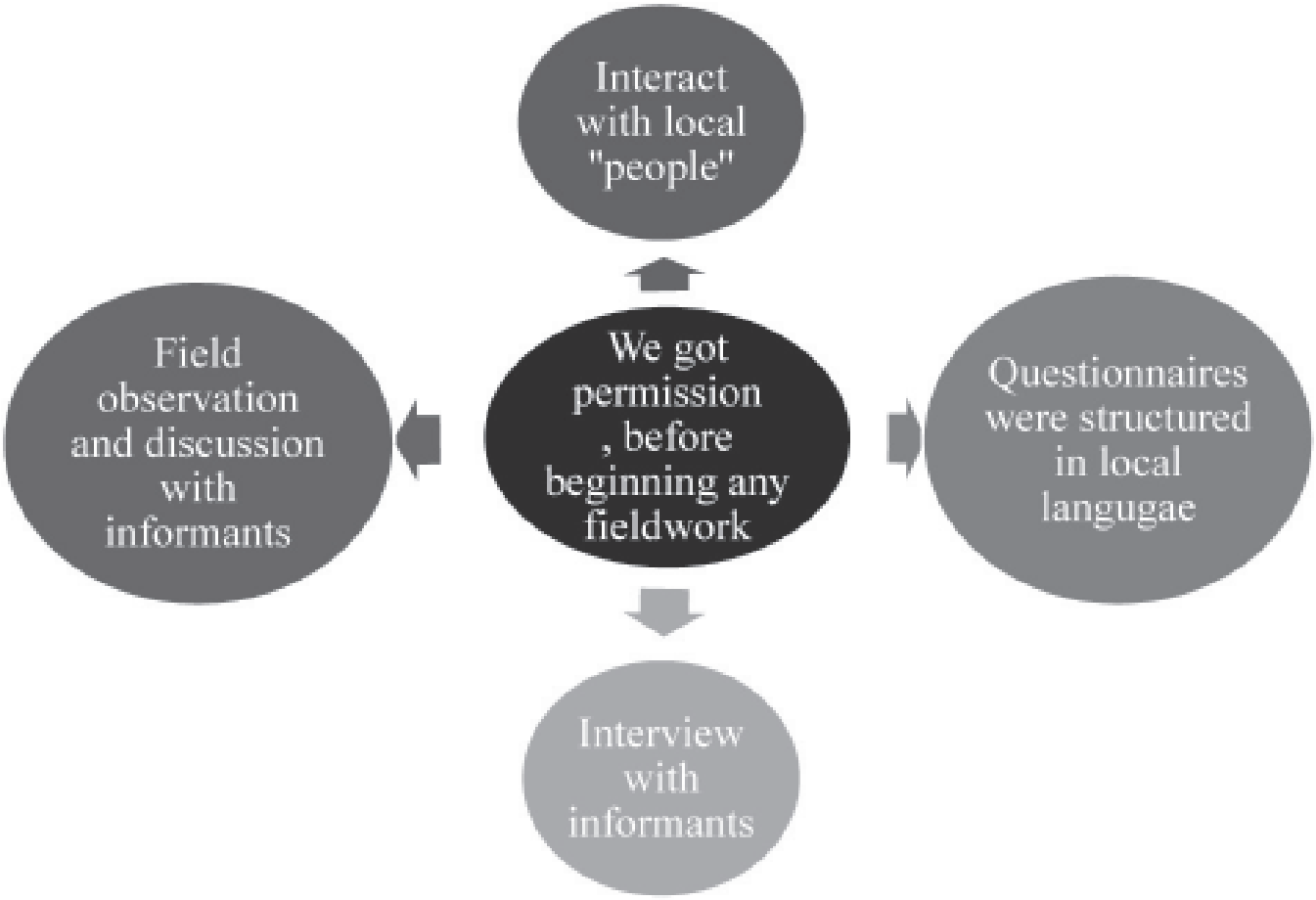


**Fig. 1 : Survey and data collection**

area includes three districts: Churu, Jhunjhunu, and Sikar.

**Field survey :** We conducted a survey in specific regions such as Harsh Mountain, Raghunathgarh, Shakambari, Mansa Mata (Udaipurwati), Smriti van (Sikar), Sri Karan Narendra Agriculture University (Fathepur), Fathepur beer, Jhunjhunu beer, and some villages in Churu and Jhunjhunu districts from December 2021 to December 2022 with the assistance of Vaidyas, local people, and Ayurvedic doctors, with the goal of collecting and documenting traditional ethnoveterinary knowledge from the local peoples. Before beginning any fieldwork, we obtained permission from the local government official in the study regions as well as elders to do research in each location (Fig.1).

## Informant interview and ethnoveterinary data collection

The study was mostly based on structured questionnaires and interviews, which included questions about the usage of medicinal plants, cures for various illnesses of livestock for which the plant is used, medicine preparation, decoction, and whether any adverse effects had been detected. For the ethnobotanical survey, we contacted local residents and farmers who were knowledgeable about indigenous ethnoveterinary medicinal herbs. The information provided by each participant was entered in the field notebook. Informants who agreed to additional interviews were contacted and invited to participate in focus groups. Meanwhile, others with extensive knowledge and experience in ethnobotany joined us on casual field walks.

## Plant collection, identification, and deposition in herbarium

During interviews, informants referred to certain ailments by the local plant names. Following confirmation of plant identity with informants, the plants were collected and photographed over numerous field visits. The collected plant specimens were delivered to the Herbarium at the University of Rajasthan's Department of Botany in Jaipur. The collected plant specimens were identified by a plant taxonomist, compared to specimens from the Herbarium in the Department of Botany and Flora of Rajasthan, and assigned an accession number.

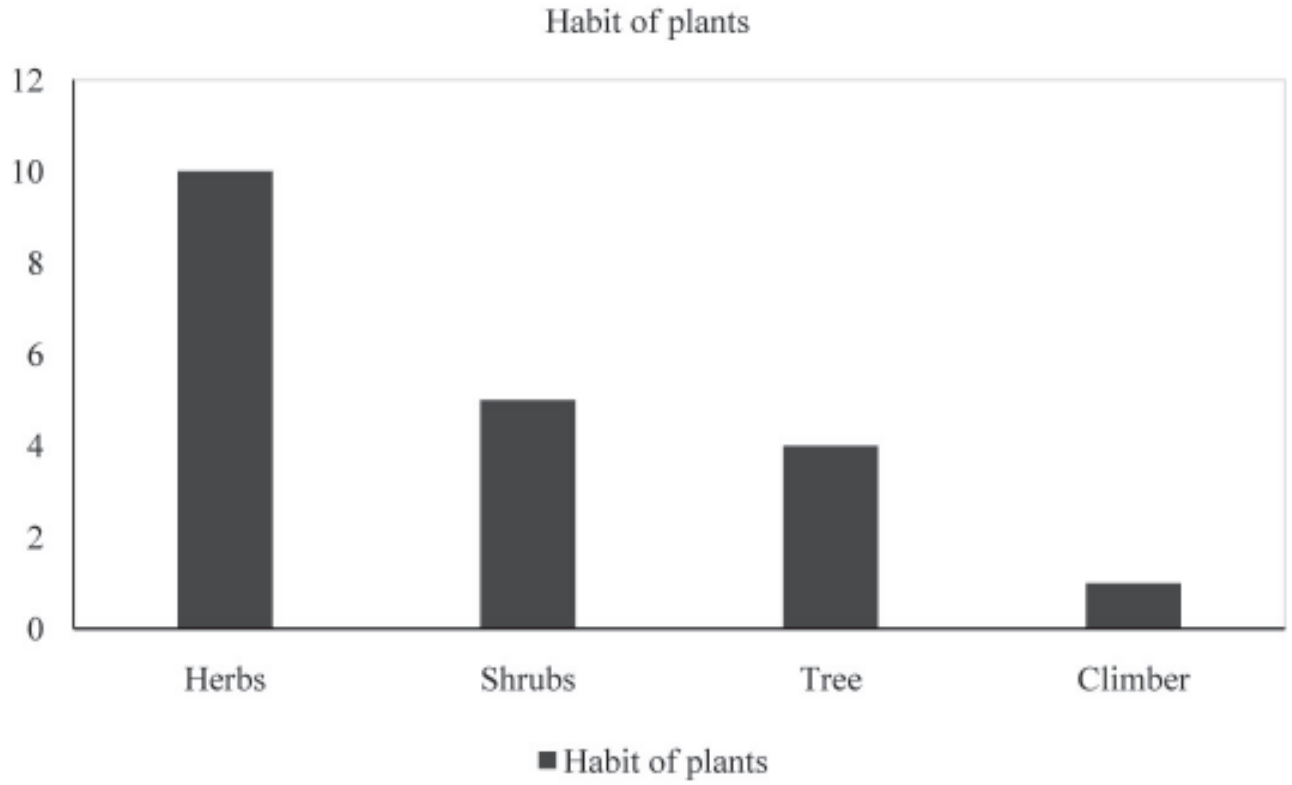


**Fig. 2: Distribution of plants under various life form**

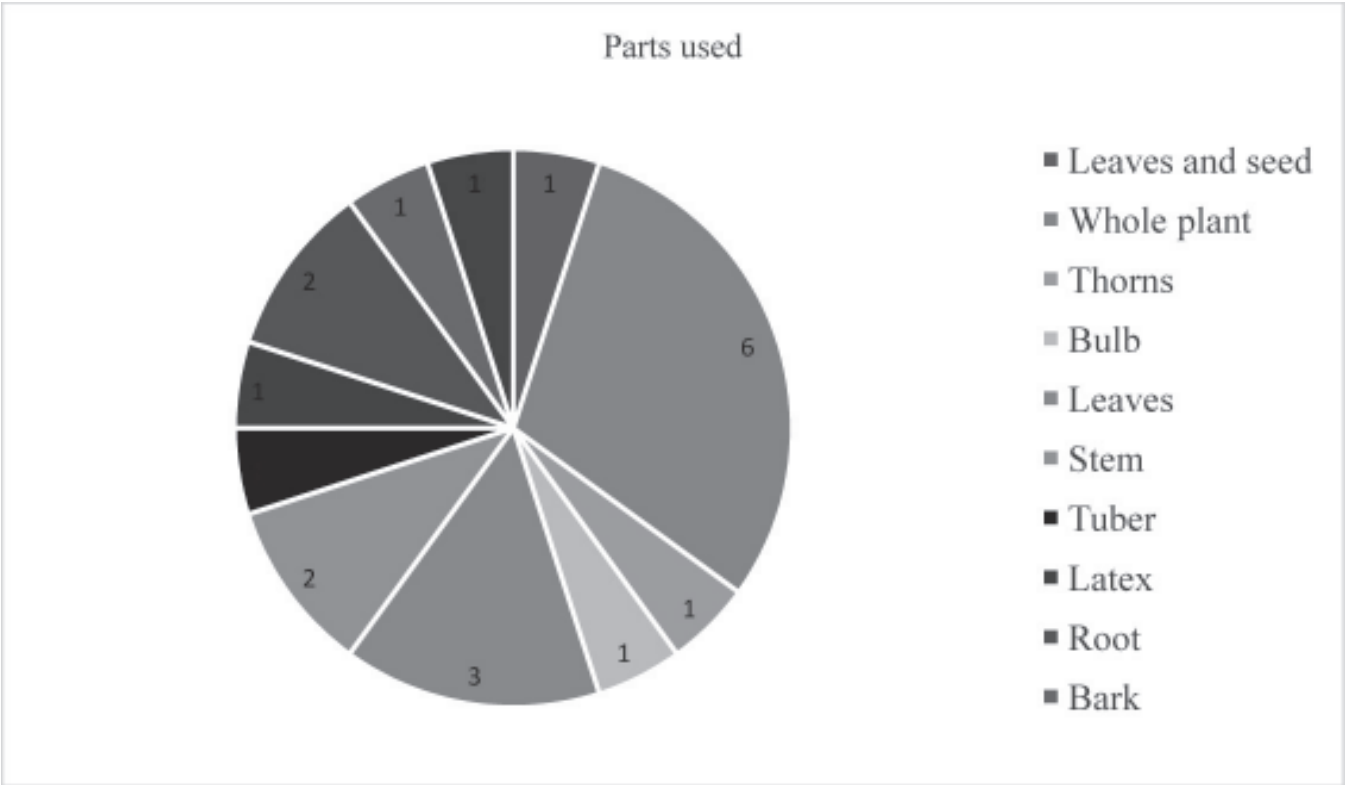


**Fig. 3 : Proportion of different plant part used as ethnoveterinary medicine**

## Results and Discussion

Throughout the study, twenty ethno-veterinary plant species were collected and identified (Table-1). It was determined that all of the collected plants were angiosperm. Herbs were found to be most common plant habit (10), followed by shrubs (5), trees (4) and climbers (1).

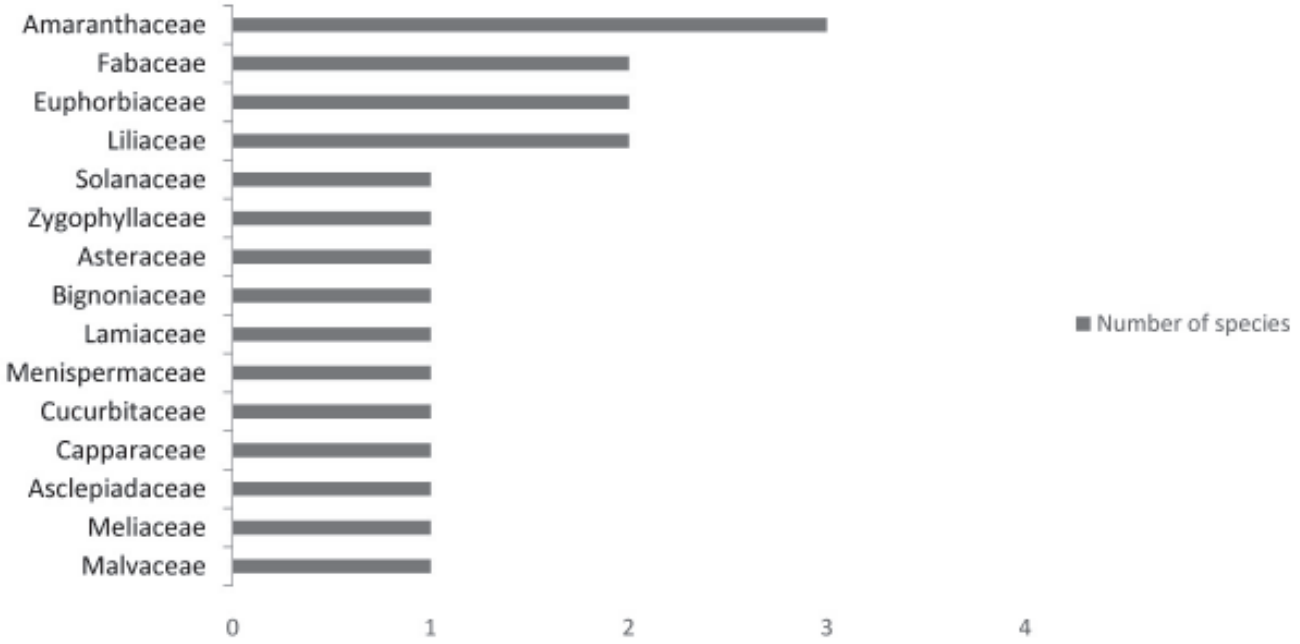


**Fig. 4 : Ethnoveterinary plant species distribution among botanical families of Shekhawati region of Rajasthan**

## Conclusion

Present study report 20 ethnoveterinary medicinal plant species from the Shekhawati region of Rajasthan. The local people of the Shekhawati region, Rajasthan widely used medicinal plants to treat various livestock ailments. The results of this study demonstrated the existence of consistent indigenous knowledge about ethnoveterinary plants employed in fundamental livestock healthcare system in this area. The majority of people live in rural area and away from the modern healthcare facilities for their livestock diseases. In the study area, the local people are mainly dependent on medicinal plants to cure various livestock "diseases" and so demand of ethnoveterinary plants increases day by day. For medicinal plants to be available for a long time here, if not throughout the entire country, techniques of sustainable use should be taken into consideration together with the essential necessity of biodiversity conservation. In order to preserve the ethnoveterinary information and biodiversity of the research area, it may be necessary to boost local, regional, and national networking efforts pertaining to sustainable use and conservation. To support the conservation of medicinal plants in the area, collaboration among the local people, non-governmental organisations, and the government is required.

## References

1. Adedeji OS, Ogunsina TK, Akinwumi AO, Ameen SA, Ojebiyi OO, Akinlade JA. Ethnoveterinary medicine in African organic poultry production. *International Food Research Journal.* 2013; **20**(2) : 527-232.

2. Galav P, Jain A, Katewa SS. Ethnoveterinary medicines used by tribals of Tadgarh-Raoli wildlife sanctuary, Rajasthan, India.

3. Galav P, Jain A, Katewa SS, Nag A. Animal healthcare practices by livestock owners at Pushkar animal fair, Rajasthan. 2010.

4. Ganesan S, Chandhirasekaran M, Selvaraj A. Ethnoveterinary healthcare practices in southern districts of Tamil Nadu. 2008.

5. Khan MT, Ahmad L, Rashid, W. Ethnobotanical documentation of traditional knowledge about medicinal plants used by indigenous people in Talash valley of Dir lower. Northern Pakistan. *J Intercult Ethnopharmacol*. **7**(1) : 8-24.

6. Kumar, S, Parveen, F, Goyal S. Ethno-veterinary plants in the Indian arid Zone. *Ethnobotany* .1691; 2004, 95.