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INFORME: AKAPANA EAST

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Introduction

The strategy selected for our first phase of paleoethnobotanical analysis of flotation samples from Tiwanaku has been 1) to analyze at least some samples from all areas, 2) to focus on domestic areas of the site, and 3) to work only with samples where information concerning cultural contexts, field notes, etc., were available. The samples selected from those excavated during 1988, 1989 and 1990 in the domestic area east of the Akapana mound (AKE) were analyzed during academic years 1989/90 and 1990/91.

During much of academic year 1989/91 analysis we were entirely lacking contextual information. As a result, our strategy was to cover the excavation area spatially, analyzing stratigraphic columns of bulk samples from units spanning the areas excavated by Jim Mathews in 1988 and by John Janusek and Martin Giesso in 1989. A total of 24 samples out of 88 from the 1988 excavation and 166 samples out of 310 from the 1989 excavation were analyzed during academic year 1989/90.

In the 1990/91 analysis, when contextual information was available to us for at least some of the samples, the lab plan was to sort approximately 30-40% of all samples from usable contexts (ie not mixed, disturbed, or undocumented). Aside from incomplete documentation, our major limitation in 1990/91 was the lack of the botanical portion of the heavy fractions due to the untimely cessation of heavy fraction sorting at the end of the 1990 field season. Of the samples excavated from AKE in 1990, only 50 samples had notes, heavy fractions, and light fractions. Of these, we selected 21 samples for analysis, a slightly higher percentage (42%) than average because of our particular interest in well-documented domestic areas. Samples were selected so that our subsample reflected the contextual range of the excavation area, and that some of each context type would be analyzed (ie a stratified random sample, stratified by cultural context).

Sample sizes for the 1988 AKE samples, which were taken before a systematic sampling strategy was implemented, ranged from 0.3 to 5.7 liters with a mean of 2.1 liters and a median value of 1.2 liters. In 1989, when the target value for a "full" sample was 6.3 liters, the mean sample size was 5.9 liters, with a median of 6.3 liters and a range of 0.6 to 6.3 liters. These make them among the better with regard to taking a standard full bag size from the excavations that year. In 1990, the standard full sample size was increased to 8.0 liters. For AKE samples taken in 1990, the range was from 2.1 liters to 8.0 liters, with a mean of 7.1 liters and a median of 7.2 liters. This generally large and consistent bag size for the 1989 and 1990 seasons means that a wider variety of comparative descriptive statistics, such as ubiquity and diversity measures, can be used without fear of unreliable results due to the high correlation of these statistics with bag size.

Methods

Field methods

Botanical samples were processed using a motorized flotation system, modified from the SMAP machine design first published by Watson in 1976. Because the charred materials have a lower specific gravity than water, they float on the water's surface and can pour off. Our machine is built from a a 55 gallon oil drum as a water container, that is used to separate charred plant remains from the site matrix. Water is pumped into the system from below, and is moved upward in the drum by a submerged shower head. Inside the drum is a removable inner bucket, with a mesh bottom that the soil samples are poured into once it is partially submerged in the machine. The bottom mesh catches rocks, artifacts, and bones that do not float. This material that is caught is termed the "heavy fraction". It is dried, and the cultural material larger than 2 mm is removed and analyzed. In 1989 and 1990 we used brass cloth in the bottom of the inner bucket, with an aperture of 0.5mm.

The charred plant remains on the surface of the water are poured off through a spout into fine-meshed chiffon. This material, termed the "light fraction", was allowed to dry, and then packaged for shipment to the University of Minnesota's archaeobotany laboratory.

Approximately 20 samples were processed per day in the field. Each day we added 50 charred poppy seeds to a randomly selected sample to act as a check on the flot machine (see Wagner 1982, 1988). Poppy seeds are used in the Americas because they are not native (and hence will never occur in prehistoric deposits), and they are small in size (ca. 0.4 x 0.6mm). These features allow poppy seeds to act as a measure of the amount of small seeds that are lost or recovered. The average recovery rate for 1989-90 was 93.4% (46.7), indicating that most material from the samples was being recovered.

Laboratory methods

Analysis of the charred plant remains from the light fraction started with removing carbon, bones, and fish scales from the floated matrix (mainly modern plant roots and soil). Lab analysis was done using low power (6-25X) stereoscopic microscopes with fiber optic light sources. Trained lab personnel extracted the charred plant remains from the samples, and made some preliminary identifications of plant taxa. H. Lennstrom checked all charred material removed from the samples and also scanned the remaining matrix for any identifiable plant parts that might have been missed. In addition she was responsible for the final identifications made of the charred plant parts. The identifications were made with the aid of Dr. Hastorf's South American reference collection of seeds, pressed plants, tubers, and wood in the lab. Material from each flot was examined two times, systematically, under the microscope. For ease of sorting, the samples were split using 2mm, 1.18mm, 0.5mm, and 0.3mm geologic sieves, keeping materials of the same size together in a separate tray. All charred material greater than 2 mm was pulled and identified, while wood was not removed from the <2 mm portion of the light fraction, as it is known to be too small for identification purposes (Asch and Asch 1975). Other plant material down to 300 microns was collected and identified. In some cases, when charred plant remains were particularly dense, it was not possible nor necessary to examine the entire sample. We used experimental results from Lennstrom's (1991a) work with Peruvian flot samples which found that a 10-25% sub-sample could be used to represent the sample as a whole, if the sample contained several thousand plant fragments and had a total volume of over 0.5 liter of charred botanical remains. Samples were split using a riffle box, so that the sub-samples were divided without bias (Pearsall 1989).

Each sample was recorded on a data sheet, containing information on its provenience, type of sample, cultural context, volume of flot sample, amount of sample analyzed, counts of all the plant taxa that could be identified, and counts of those items that could not be identified. For recording, counts were chosen over weights as some of the seed taxa are very small, and their weights are negligible. Seed fragments and whole seeds were recorded by count. Material from the heavy fractions was identified in the same manner, and tallied on the same data sheet as the light fraction.

Information was transferred from the data sheets into data files on floppy disks that were then loaded onto the mainframe computer. The mainframe used is an IBM 4381 available at the University of Minnesota's St. Paul computer center. Data analysis was carried out using the SAS statistical package (SAS Institute 1985a; 1985b; 1985c; 1985d). This system was chosen for several reasons. First, it had the capability of managing a very large dataset, and provided the types of summary, parametric, and non-parametric statistics which were of interest. Also, it had an attached graphics package that allowed the plotting of publication quality graphics, without having to transfer data to another system.

Sorting strategies for archaeobotanical material in the lab

Because time and money are always in high demand in the lab there are several different strategies that can be used when sorting and identifying archaeobotanical material to maximize data collection while minimizing time expended. Other considerations are the goals of the study at hand, the quality of the collection and recovery techniques used to retrieve botanical material, and the overall quality of archaeological information available for the interpretation of the materials.

Below are sorting schemes devised especially for flotation samples, where the study of domesticates is the main focus. Strategies 1 and 2 were used with the AKE samples from 1988 and 1989, and strategies 5 and 6 were used with the 1990 AKE materials.

Strategy 1: Complete sort

In the best of all possible worlds it is nice to be able to sort out and identify all prehistoric material from a sample. It is especially desirable because a single flot sample is already only a small sample of any given archaeological context, and one wants as complete a picture as possible. In our case, one would sort out, and identify all charred material, except <2mm wood, which is usually unidentifiable. All bones and other animal and artifactual materials are pulled out and given to appropriate specialists.

This type of strategy gives RATIO level data, with exact counts (and/or weights) entered onto the computer. Descriptive statistics such as RELATIVE PERCENTAGES, DENSITIES, UBIQUITIES, and DIVERSITIES can be generated from this type of data.

Strategy 5: Complete sort >0.5 mm

After working with the 1986-90 Bolivian material we found that the samples were full of a lot of dust, minute unidentifiable charcoal fragments, taking approximately 6-7 hours each to sort. We felt this was too much time to spend on a single flot sample. We were also somewhat uncomfortable with material that was less than 0.5 mm (500 microns), as the bottom mesh inside the flot machine is only 0.5mm, and there is a possibility that anything smaller than that could be a contaminant from some other samples. This type of exchange through the "inner bucket" mesh is known to happen, as it occasionally happened with the modern poppy tracers when this mesh had too large an aperture in 1982-6.

Tests with the Bolivian material showed that the percentage of differing small taxa are not at all the same from sample to sample, so there is unfortunately no systematic way of calculating the amount of material that will be missed by not sorting material between 0.5 and 0.3 mm. At least there did not seem to be taxa that would be completely missed, except sometimes UNK 264 and 190. Taxa that are most likely to lose a substantial number of seeds in the final tally include are Small Poaceae, *Nicotiana*, and *Juncus*.

This strategy gives ratio level data, so that densities, relative percentages, diversity, ratios, and ubiquities can be generated, though small taxa may be underrepresented.

Strategy 6: Sample splitting, sorting only >0.5mm

This is a combination of strategies 5 and 2, where a fraction of the sample may be sorted, and no material less than 0.5 mm is checked. We used this procedure on extremely large, and dense samples. As with all the other strategies discussed here, ratio level data is obtained, and densities, relative percentages, diversity, ratios, and ubiquities can be calculated. Again, what will be lost are some of the small taxa, and some degree of accuracy.

Quantification of Samples from AKE

In this section we report the different plant taxa recovered from the samples and three different quantification schemes used to help interpret the botanical remain (DENSITY, UBIQUITY, and RELATIVE PERCENTAGES). Density is expressed as the number of seeds (or seed fragments) per liter of site matrix. This standardizes the counts of material, so that samples of differing original volume can be compared (Pearsall 1989; Popper 1988). Also, each taxon can be considered independently, and density values seem least biased when comparing samples of different original soil volume (see Lennstrom 1991b).

Ubiquity is expressed as a percentage, and is calculated as the percentage of samples which contain each taxon (Hubbard 1975; Popper 1988). For example, if maize is identified in 10 of 30 samples it has a ubiquity value of 33%. The advantage of ubiquity scores is that each taxon is considered separately, and the amount of each does not affect the others. Also, the amount of each taxon in a sample does not affect the ubiquity value, so that 1 or 1000 of the same seed in a single sample carries the same weight.

The third quantification method we present is relative percentage (Popper 1988). These values are expressed as the percentage each taxon makes up relative to the number of items in an individual sample, and is displayed as a pie diagram. The advantage of this scheme is that all taxa can be considered simultaneously, and the relative proportions of taxa from different samples can be compared, regardless of the original volume of the sample, or the density of charred plant remains.

LIST OF PLANT TAXA:

Plant remains from the Wila Jawira botanical samples were commonly identified to the family level, and sometimes to genus. When referring to plants by scientific names authorities (initials) are usually cited when the taxon is first mentioned in the text. For example *Zea mays* L. indicates that Linnaeus named the species (for complete list see appendix) Genera (eg: *Chenopodium*) are always capitalized, and underlined, or italicized. The second part of the species name is also put in italics, or underlined, but is always lower case (*Chenopodium quinoa*). The addition of "spp." following the genus name indicates that it might be represent by one or more species, but we cannot determine which one(s). When two species from the same genus are referred to in succession the genus is usually abbreviated to a single letter for the second species.

Large (>1.18mm) *Chenopodium* spp. (seeds) Probably domesticates: either quinoa (*Chenopodium quinoa*) or cañiwa (*C. pallidicaule*). Food source.
Small (<1.18mm) *Chenopodium* spp. (seeds) Possibly domesticates: either quinoa (*Chenopodium quinoa*) or cañiwa (*C. pallidicaule*). Food source
Lumps (Unidentifiable charred plant fragments, in this case especially, they might be tubers or other fragments of domesticates.) Possible food source.
Small Poaceae (seeds) Grass family. Possibly used as fodder, fuel, or in construction, or present in dung burned as fuel
Medium Poaceae (seeds) Grass Family. Possibly used as fodder, fuel, or in construction
Large Poaceae (seeds) Grass Family, likely *Stipa* spp. or *Festuca* spp. Possibly used as fodder, fuel, or in construction.
Wild Leguminosae (seeds) Fabaceae-Bean family. Common weed, possible fodder, or present in dung burned as fuel.
Scirpus spp. (seeds).
Verbena spp. (seeds). Common weed.
Plantago spp. (seeds). Common weed, thrives on disturbed soils.
Malvaceae (seeds) Mallow family. Common weed.
Relbunium spp. (seeds) A plant used in S. America for red dye.
Rubus spp. (seeds) Some types could have been used as a casual food source, or as medicines.
Cyperaceae (seeds) Sedge family, often associated with wetlands. Many industrial purposes: mats, boats, roofing, etc.
Cruciferae (seeds) Mustard family. Weeds, sometimes eaten as greens.
Unknown 224 (seeds) Possibly a mint family.
Potamogetonaceae (seeds) Pond weed family, associated with freshwater ponds, bogs and marshes.

Cereus spp. a type of cactus. Also possibly present in dung burned as fuel.
Unknown 264 (seeds)
Amaranthus spp. (seeds) Usually a weedy annual; found in disturbed habitats, possible casual food source.
Unknown 270 (seeds)
Unknown 242 (seeds)
Unknown 265 (seeds)
Compositae (seeds) Sunflower family. Common weeds.
Kaiña (seeds) This is an Aymara name, scientific name unknown.
Nicotiana spp. (seeds) These are likely of a type of tobacco which grows wild/feral in the area today, though we cannot distinguish them from more tropical domesticated species at this time.
Sisyrinchium spp. (seeds) Weed.
Zea mays (maize) kernels
Zea mays cob fragments
Capsicum spp. (seeds). Domestic chili pepper, this plant does not grow at this altitude, and must have been brought in.
Domesticated legume (bean).
Oxalis spp. (seeds). Weed.
Large Solonaceae (seeds) Nightshade or Potato family.
Unknown 202 (seeds) Possibly Borage family (Boraginaceae)
Unknown 271 (seeds)
Unidentifiable seeds
Tubers, (food) probably domesticated species, such as the potato
Wood and twig fragments-Fuel, construction, tools.
Wira Koa leaves - Aymara name, scientific name unknown. This herb is often burned as an offering to Pachamama today.
Leaves-Type unknown.
Dung-Fertilizer and/or fuel.

QUANTIFICATIONS

1988, 1989, 1990 All samples together n=219

Average density of crop plants (#/liter of site matrix)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.32	0.07	0.48	14.21	<0.01

Ubiquity of crop plants (# of samples containing taxon)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
28%	8%	45%	95%	1%
(62)	(18)	(99)	(209)	(2)

1988 samples n=24

Average density of crop plants (#/liter of site matrix)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.29	0.00	0.21	22.67	0.00

Ubiquity of crop plants (# of samples containing taxon)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
8%	0%	17%	92%	0%
(2)		(4)	(22)	

1989 samples n=166

Average density of crop plants (#/liter of site matrix)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.31	0.03	0.38	11.08	<0.01

Ubiquity of crop plants (# of samples containing taxon)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
27%	7%	44%	95%	1%
(46)	(12)	(73)	(158)	(2)

1990 samples n=21

Average density of crop plants (#/liter of site matrix)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.44	0.46	0.91	23.15	0.00

Ubiquity of crop plants (# of samples containing taxon)

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
48%	14%	67%	100%	0%
(10)	(3)	(14)	(21)	

1988 Samples by Cultural Context

Context = ash lens (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	45.33	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	100%	0%
			(1)	

Context= Burial (n=2)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.18	0.00	0.18	4.56	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
50%	0%	50%	100%	0%
(1)		(1)	(2)	

Context= Canal (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	16.67	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	100% (1)	0%

Context= Possible Feature (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	1.60	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	100% (1)	0%

Context= Fill (n=2)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	0.77	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	50% (1)	0%

Context= Hearth (n=4)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
1.67	0.00	0.00	20.71	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
25%	0%	0%	100%	0%
(1)			(4)	

Context= Midden (n=4)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.16	11.70	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	25%	100%	0%
		(1)	(4)	

Context= Occupation (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	0.53	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	100%	0%
			(1)	

Context= Fill from Pottery Vessel (n=2)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	20.00	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	100% (1)	0%

Context= Soil with Artifacts (n=3)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.13	0.52	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	33% (1)	67% (2)	0%

Context= Trash pit (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	3.86	227.27	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	100% (1)	100% (1)	0%

NB: Three of the 1988 samples had cultural contexts which could not be determined from the field notes.

1989 Samples by Cultural Context

Context= Fill (n=5)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.03	0.00	0.06	2.20	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
20%	0%	40%	100%	0%
(1)		(2)	(5)	

Context= Midden (n=25)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.05	0.00	0.33	9.69	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
24%	0%	40%	96%	0%
(6)		(10)	(24)	

Context= Occupation (n=5)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.10	4.39	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	40%	100%	0%
		(2)	(5)	

Context= Plowzone (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	0.00	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	0%	0%

Context= Soil with Artifacts (n=81)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.04	0.01	0.13	4.40	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
19%	6%	37%	96%	0%
(15)	(5)	(30)	(78)	

Context= Trash pit (n=20)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
1.59	0.10	1.27	37.08	0.02

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
60%	15%	70%	90%	5%
(12)	(3)	(14)	(18)	(1)

NB: 29 of the 1988 samples had cultural contexts which could not be determined from the field notes. The 81 samples designated "soil with artifacts" may well actually encompass other cultural contexts, but the notes were such that all we could determine was that it came from soil in which there were other artifacts recovered.

1990 Samples by Cultural Context

Context= Fill (n=4)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
1.59	0.13	1.62	63.18	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
75%	25%	50%	100%	0%
(3)	(1)	(2)	(4)	

Context= Midden (n=6)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.06	0.00	0.59	8.61	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
33%	0%	83%	100%	0%
(2)		(5)	(6)	

Context= Occupation (n=6)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.12	0.02	0.46	5.81	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
33%	17%	67%	100%	0%
(2)	(1)	(4)	(6)	

Context= Plowzone (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.00	0.00	0.00	2.13	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0%	0%	0%	100%	0%
			(1)	

Context= Trash pit (n=3)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.45	3.01	2.09	41.10	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
67%	33%	100%	100%	0%
(2)	(1)	(3)	(3)	

Context= Ceramic Offering (n=1)

Average density of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
0.48	0.00	0.00	21.43	0.00

Ubiquity of crop plants

Maize	Tubers	Large *Chenopodium*	Small *Chenopodium*	Domesticated Legumes
100%	0%	0%	100%	0%
(1)			(1)	

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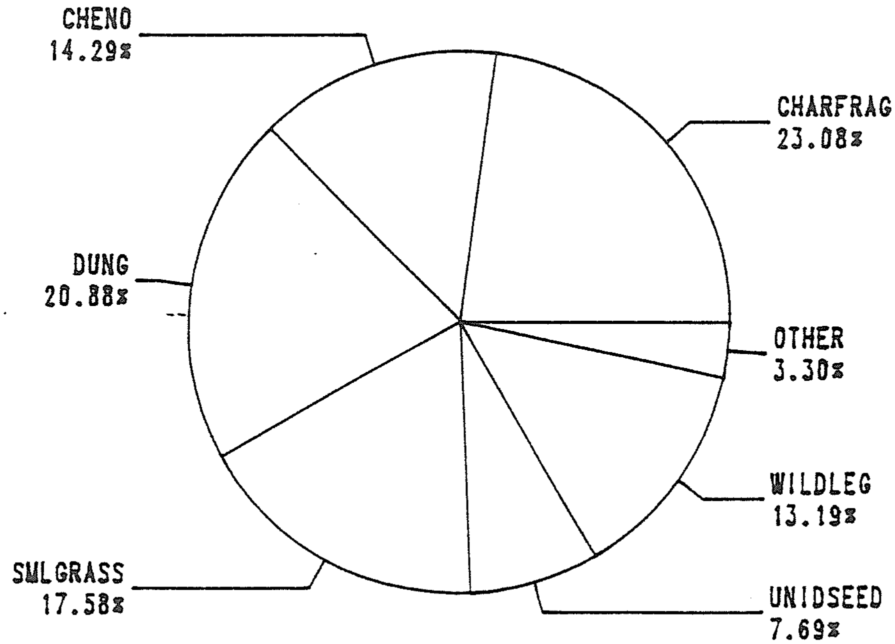
Relative Percentages of entire flot sample contents. Relative percentages of different plant groups (eg; crops only, weeds only, identifiable materials only) can be generated from raw data. For pie diagrams see following sheets.

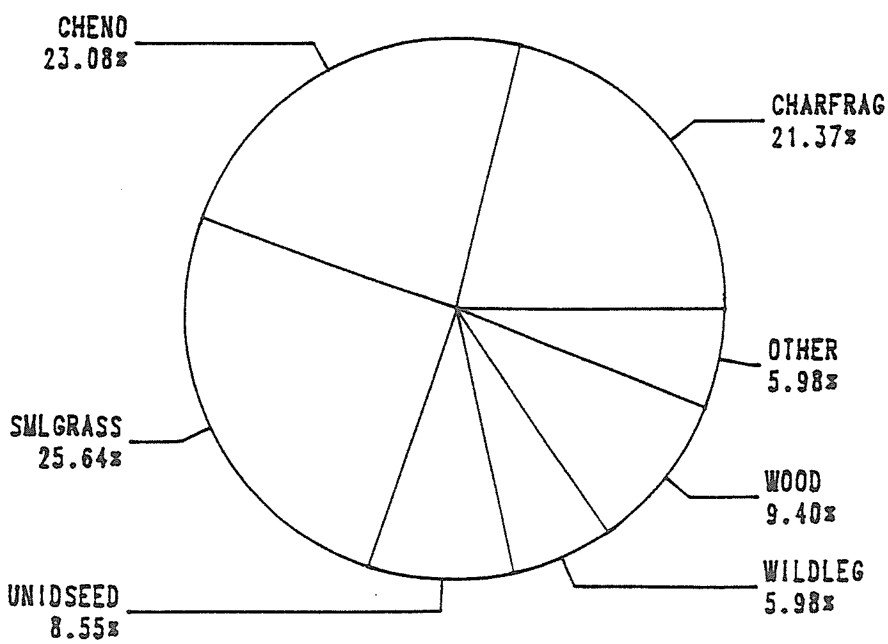
1988 AK-E

CONTEXT = ASHLENS



n=1

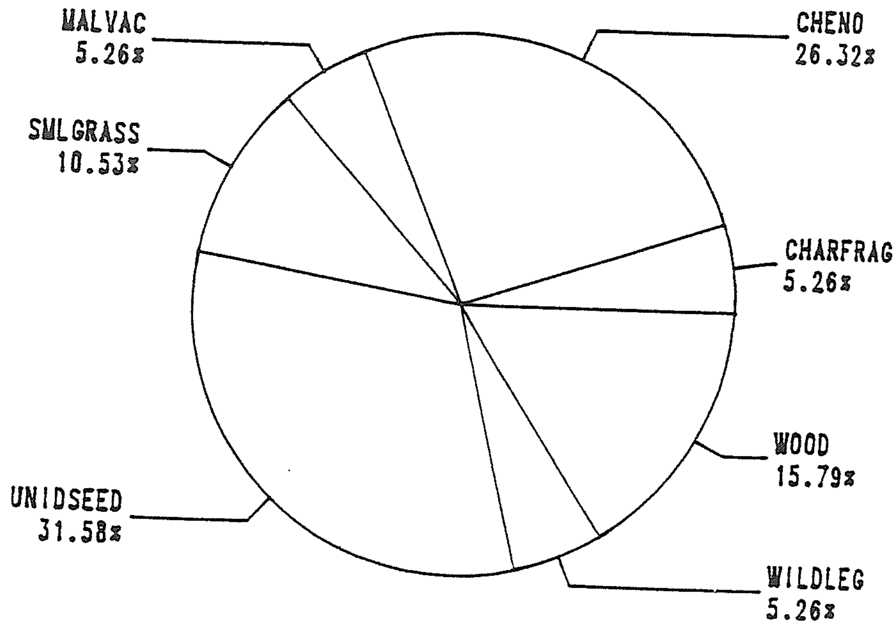
CONTEXT = BURIAL



n=2

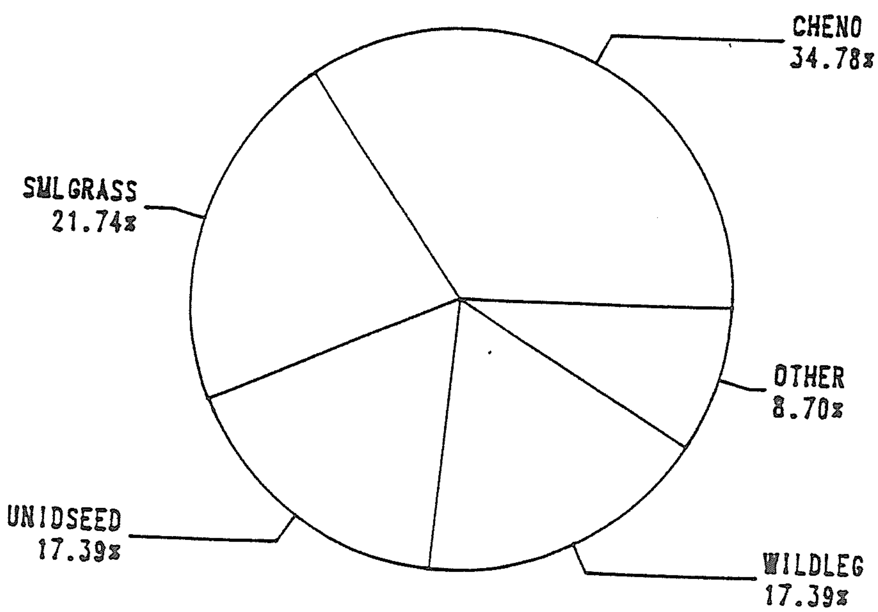
1988 AK-E

CONTEXT = CANAL



n=1

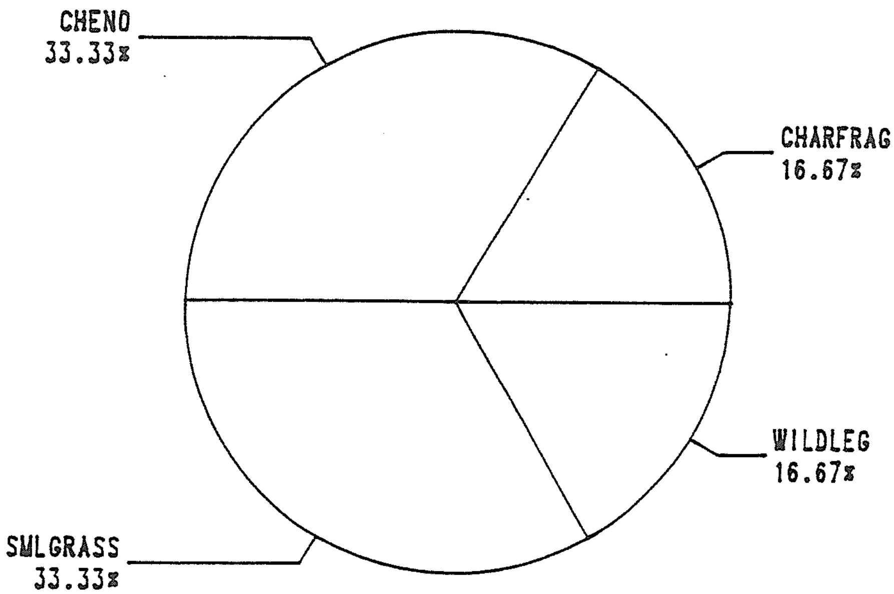
CONTEXT = FEATURE



n=1

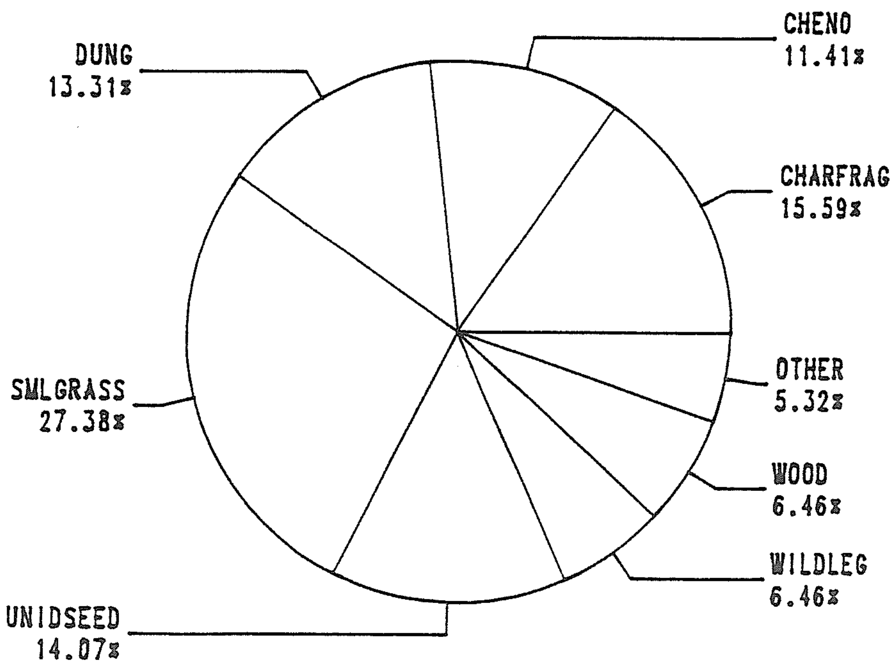
1988

CONTEXT = FILL



n=2

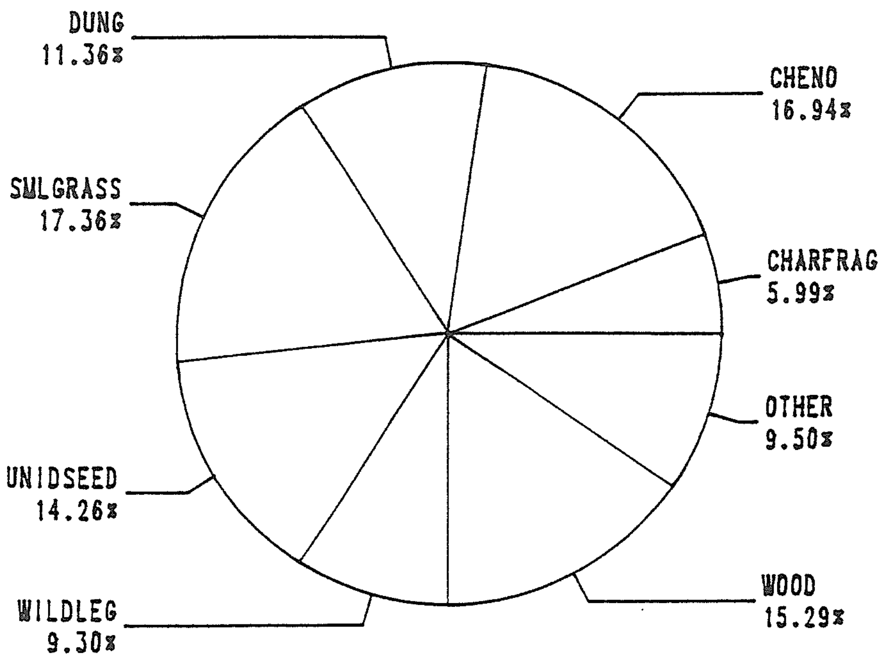
CONTEXT = HEARTH



n=4

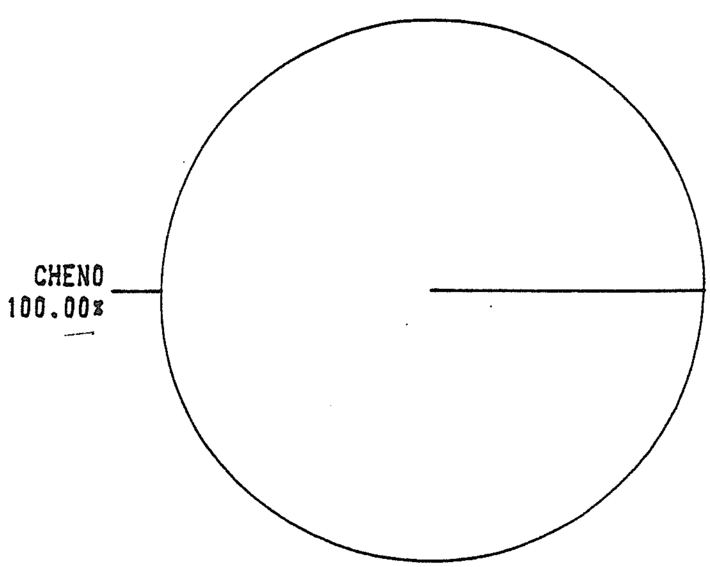
1988 AK-E

CONTEXT = MIDDEN



n=4

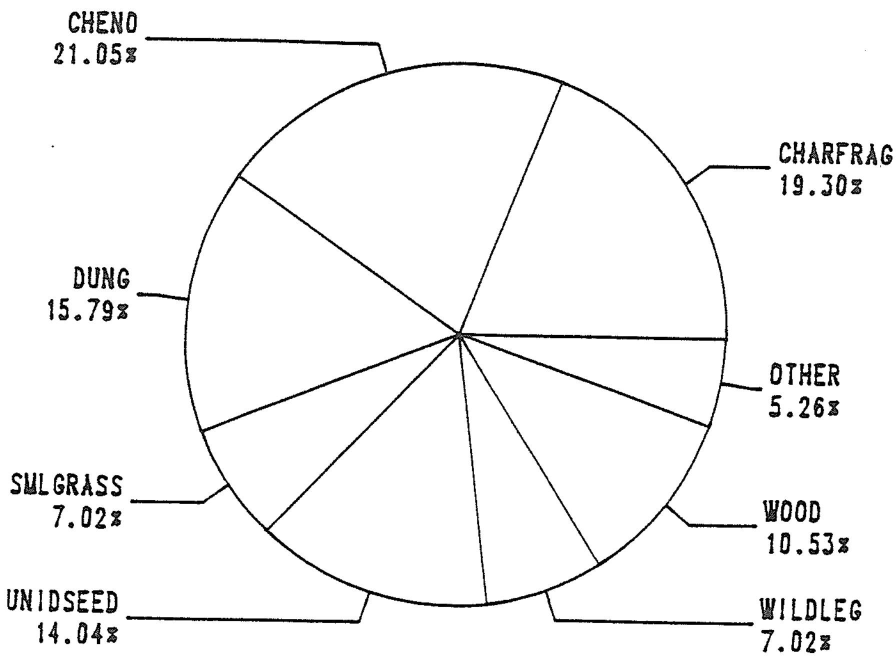
CONTEXT = OCCUPATION



n=1

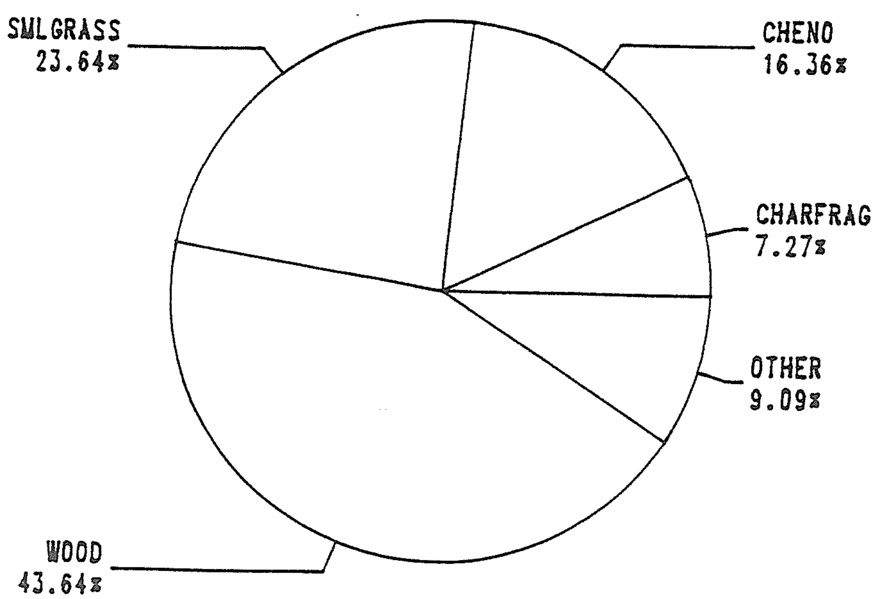
1988 AK-E

CONTEXT = POTFILL



n=2

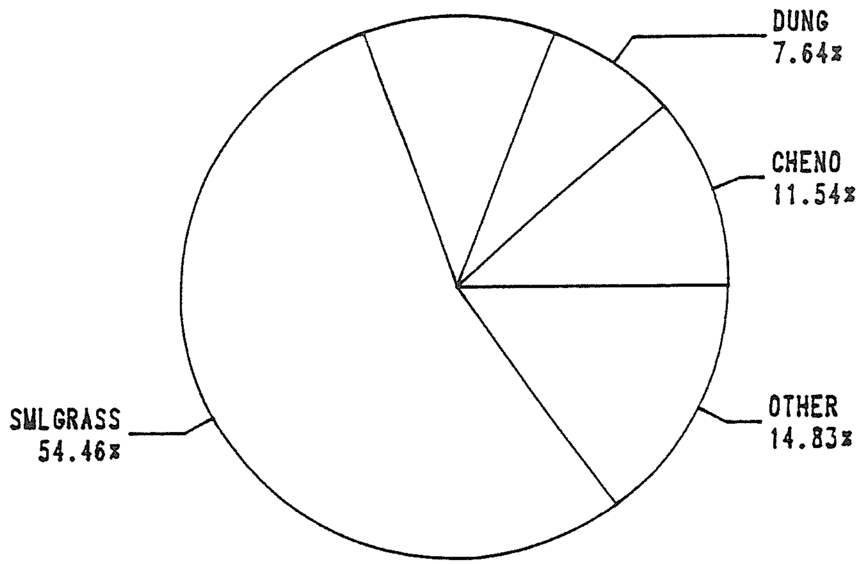
CONTEXT = SOIL/ARTIF



n=3

1988 AK-E

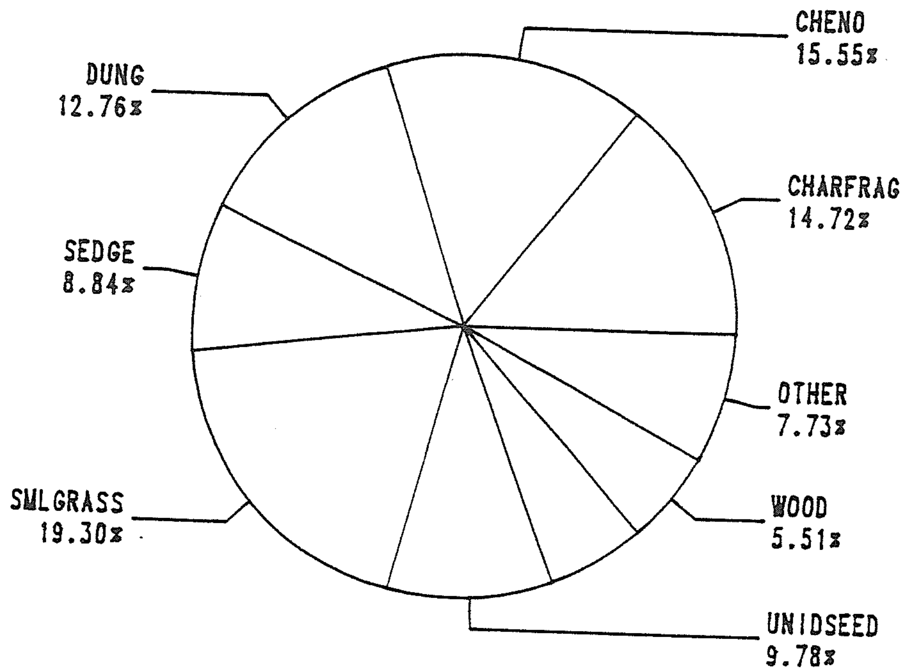
CONTEXT = TRASHPIT



n=3

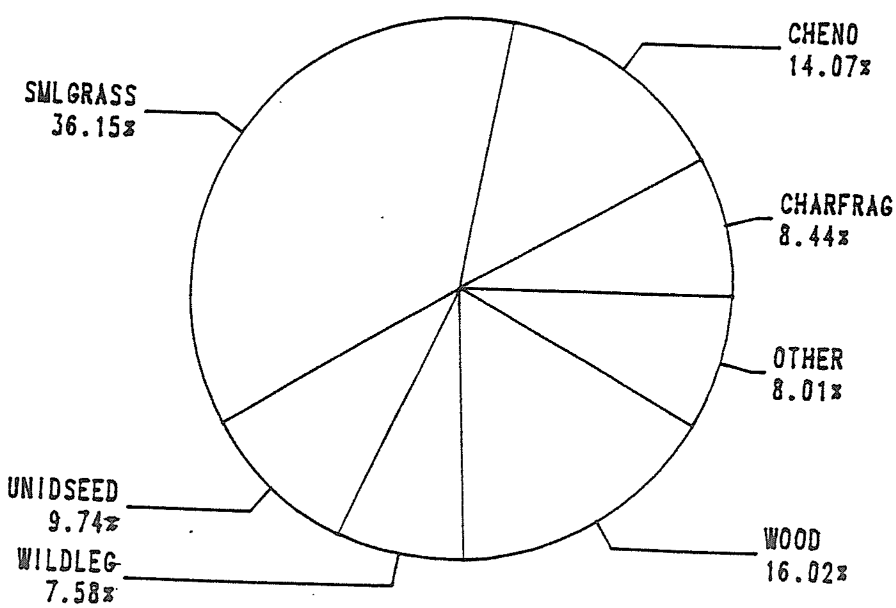
1107 HK-E

CONTEXT =



n=29

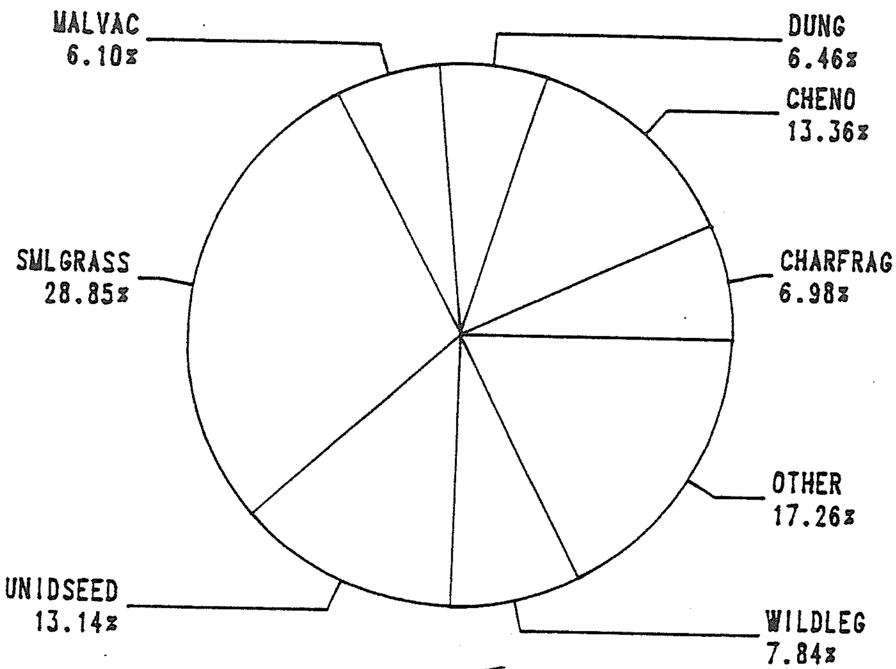
CONTEXT = FILL



n=4

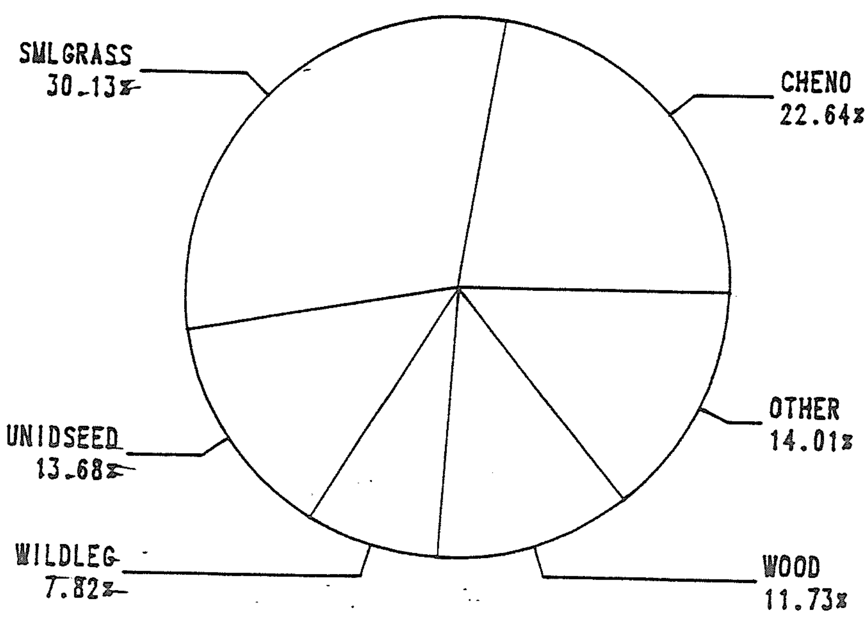
1989 AK-E

CONTEXT = MIDDEN



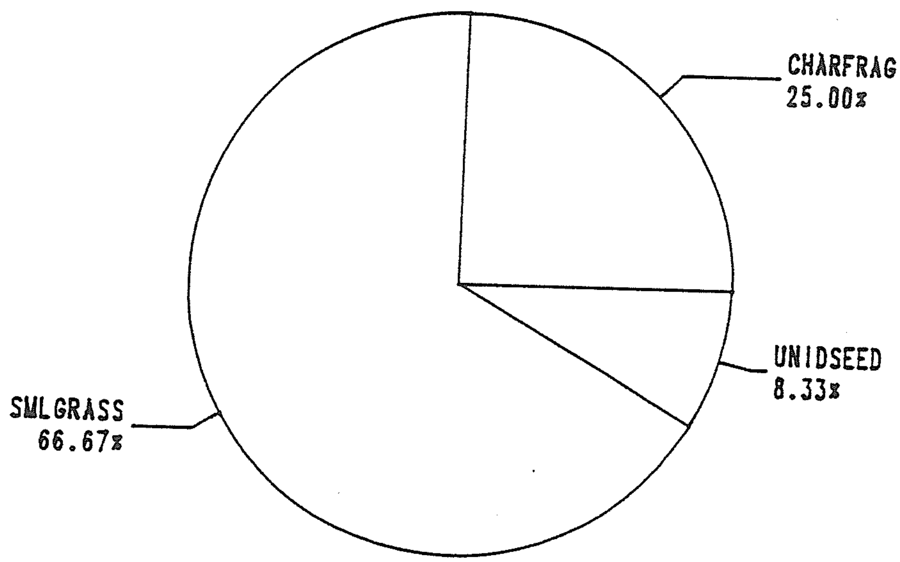
n=25

CONTEXT = OCCUPATION



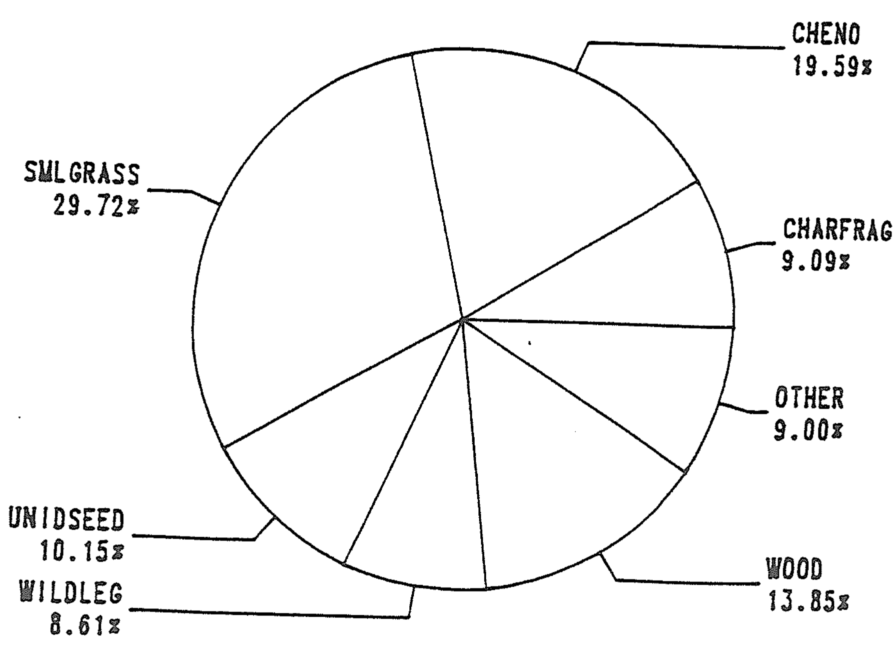
n=5

CONTEXT = PLOWZONE



n=1

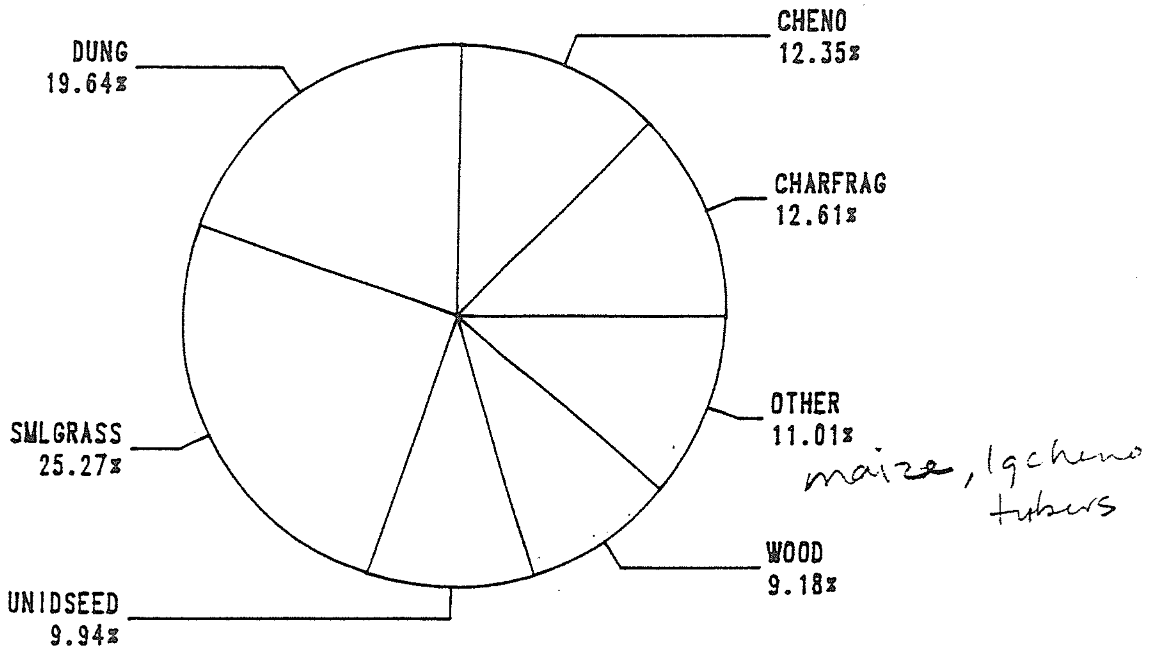
CONTEXT = SOIL/ARTIF



n-81

1989 AK-E

CONTEXT = TRASHPIT

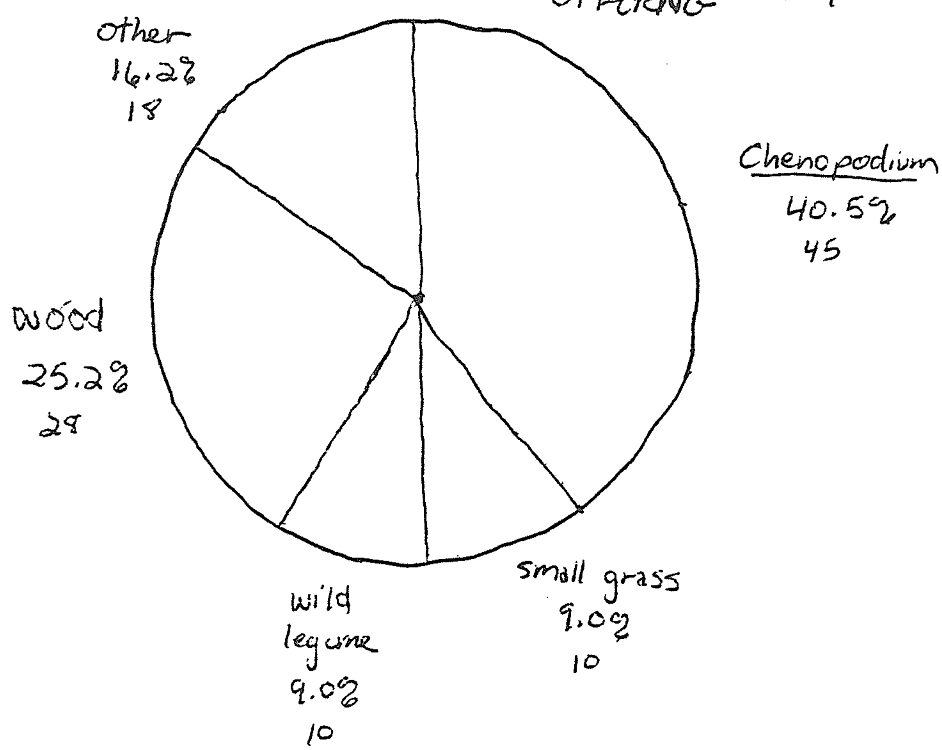


n=20

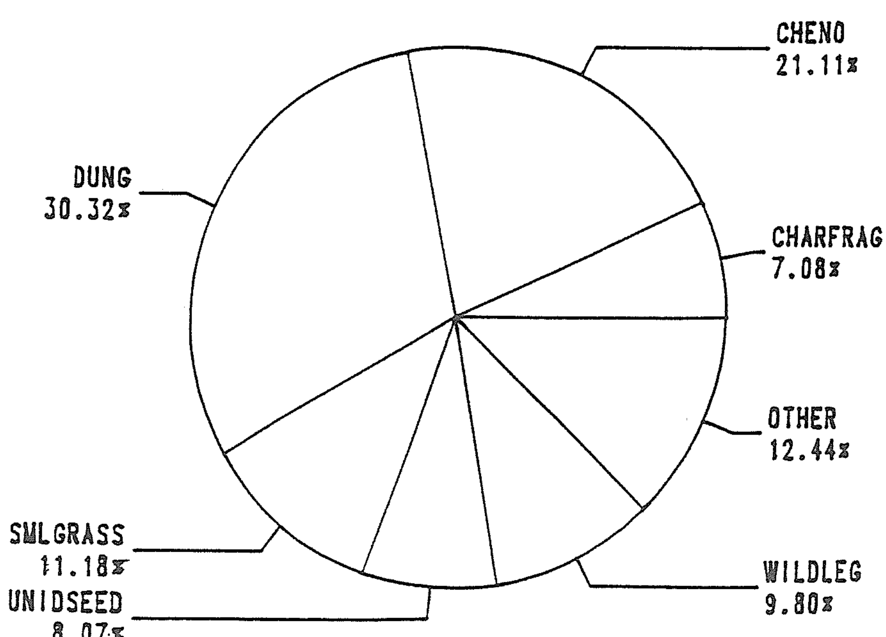
1990

AK-E

CONTEXT = CERAMIC OFFERING n=1



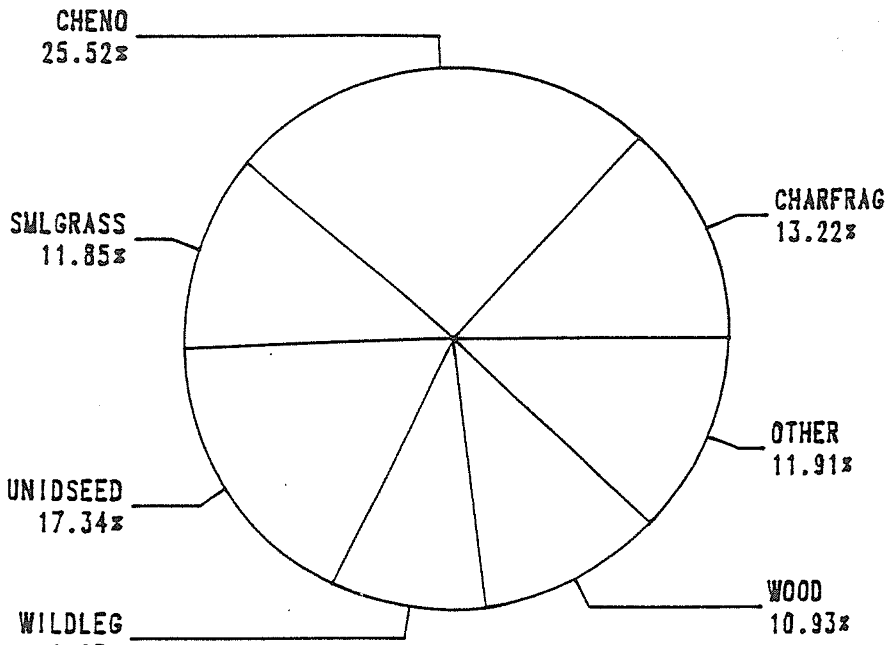
CONTEXT = FILL



n=4

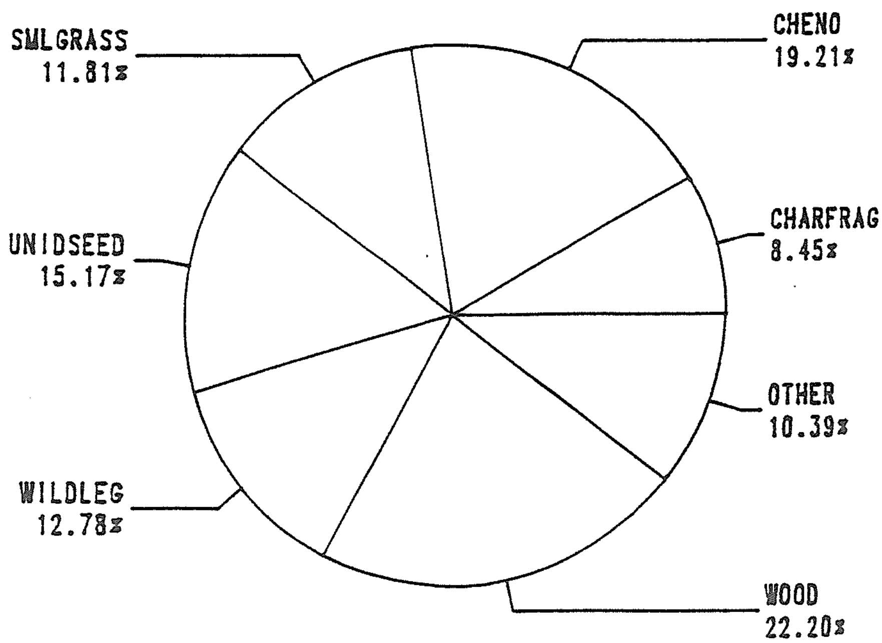
1990
AR-E

CONTEXT = MIDDEN



n=6

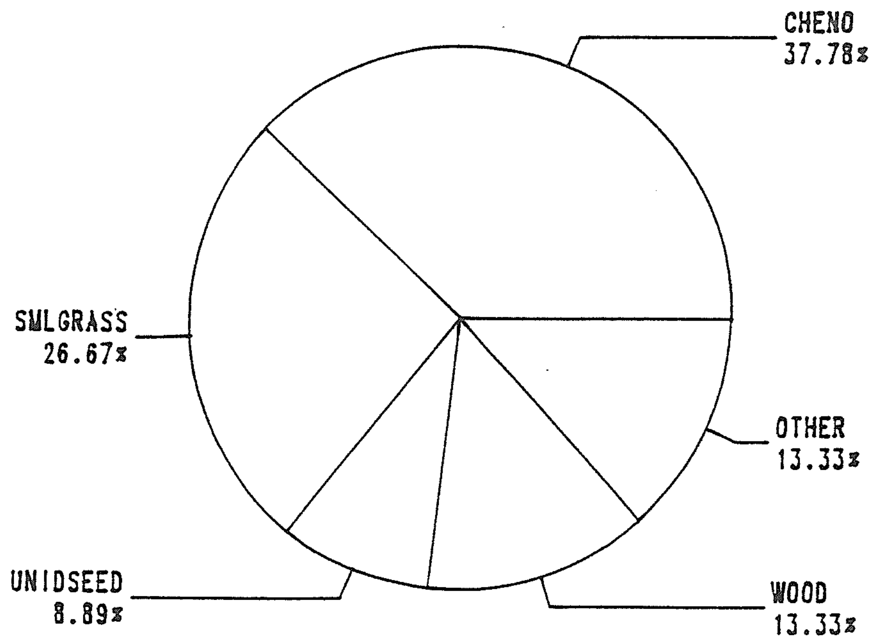
CONTEXT = OCCUPATION



n=6

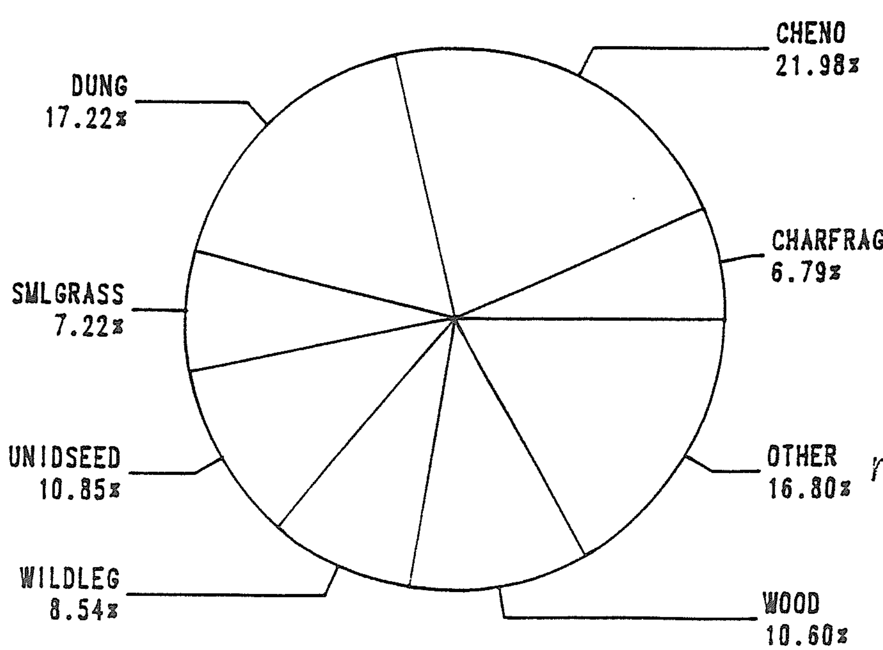
1990
AK-E

CONTEXT = PLOWZONE



n=1

CONTEXT = TRASHPIT



maize, cheno, [illegible]

n=3

INTERPRETATION OF AKAPANA EAST PLANT REMAINS

The differences in sample sizes for the different years means that care must be taken when comparing them, especially when looking at measures such as ubiquity, which is strongly correlated with sample size. The data here demonstrates this : the crop ubiquities generally increase from 1988 to 1989 to 1990 with the increasing sample size (from a mean of 2.1 liters to 5.9 liters to 7.1 liters respectively).

In terms of ubiquity, the 1990 samples have substantially more widespread tubers, maize and large *Chenopodium* than the 1989 samples, as well as more dung (present in 55% of the samples in 1990 as compared to 22% of the 1989 samples). Since the 1990 excavations for the most part were expanding below the 1989 dig, this may be representative of some sort of shift through time, that in the later period, the Tiwanacota were depositing their refuse more discretely rather than broadly across the site. But given the correlation between ubiquity and sample size, it may be that this is simply a result of the change in sampling procedure (from 6.3 to 8.0 liter samples).

In terms of densities, there is a remarkable tenfold decrease in tuber density between 1990's deeper/earlier samples and 1989's shallower/later samples. The maize densities, on the other hand, are relatively constant between the 1989 and 1990 samples, though they are less ubiquitous, more discretely deposited in the later (1989) samples. The large chenopodium are both denser and more ubiquitous in the earlier (1990) samples. Dung follows this same trend, although the other major fuel source, wood, is quite comparable between the two season's samples. This might indicate a decreasing importance and/or availability of dung as a fuel source through time.

The 1989 samples on the whole are less dense than the 1990 samples, perhaps indicating an increasing "neatness" or focus on controlled deposition of refuse through time. In the later period, garbage was perhaps deposited in areas removed from the immediate domestic setting (areas such as Chiji Jawira, which resembles more than anything else a huge garbage dump). Or this could indicate a less intensive occupation of the area in the later period.

Where maize densities remain more or less constant through time, the maize ubiquity is substantially lower in the later (1989) samples. Maize is continuing to be used through time, but the manner of its deposition is changing. When looking at the ratios of maize kernels to cupules (the modified bracts which attach the kernels to the cob), we find the later (1989) samples have a higher ratio of kernels to cupules. This may indicate a change in the way maize is brought into the domestic area, entering on the cob in the earlier (1990) samples and in a more prepared state in the later (1989) samples. One might read this change as perhaps indicative of decreasing self-sufficiency in production or procurement and increasing dependence on acquiring harvested foodstuffs through time.

The 1988 samples display particularly high densities of grass (89.08 as compared to 1989's 18.85 and 1990's 12.57) and mallow (16.47 as compared to 1.78 and 3.85). They also have over ten times the density of small *Chenopodium* as large *Chenopodium*. These numbers are actually reminiscent of some of the earlier sites from the Tiwanaku Lower Valley, with a comparatively "rural" appearance.

When looking at the different excavation years by context, we find that there is relatively little food refuse in any of the 1988 contexts. Trash pits, which elsewhere on the site are the primary locus for food refuse, are not full of food in these samples. The ashlens context looks to be primarily probable fuel remains, perhaps representing the cleaning of a hearth or some other burning activity not involving food refuse. The midden samples are quite diverse and not dominated by any one taxon. The hearth sample more closely resembles midden than anything else, as does the fill from the ceramic vessels. The occupation sample is 100% *Chenopodium*. There is a lot of wood in the contexts called soil with artifacts. Canal fill is the only context with greater than 5% mallow, reinforcing our general finding that mallow is more common outside the core areas of Tiwanaku. The possible feature context resembles a cross between midden and occupation.

In the 1989 samples, the cultural analysis is somewhat problematic because of the complete lack of contextual information for 29 samples, and the designation of 81 samples as "soil with artifacts" due to incomplete contextual information. The majority of these 81 came from the area excavated by Martin Giesso, and it is certain that there were in fact a variety of cultural contexts uncovered in his area, including at the very least fill, midden, and occupation zones, but we do not have that information for these samples yet.

The 1989 trashpit samples contained all of the maize recovered in 1989, as well as the greatest density of large *Chenopodium*, small *Chenopodium* and tubers : the food remains. The midden contexts contained the second densest deposits of food refuse, and the second densest deposits altogether, after the trashpits. The occupation samples looked "cleaner", generally less dense, and with fewer food remains. The missing contexts have 9% sedge, the only context with >5% sedge. Sedges are moist area plants, but what they signify culturally is still unclear. The soil with artifact category contains some food remains but are not particularly dense, leading us to interpret these as a combination of contexts such as midden, fill and occupation, but probably not trashpits.

The 1990 trashpits, like the 1989 trashpits, contain most of the food remains, and comparatively particularly high densities of tubers. The midden context does not contain much food, nor does it seem to be particularly high in probable fuel remains (wood, dung, grass). It does not seem, therefore, to represent discrete dumping episodes, such as hearth cleaning or food refuse. The occupation samples contain a high relative proportion of wood, and more food remains than the midden contexts, but a relatively low dung content. Fill, contrariwise, is full of dung. It is somewhat unclear to us how the excavator differentiated fill from midden. Does fill represent some kind of secondary dumping or post-occupational deposition where midden is a primary occupational deposit? Fill has a high proportion of probable fuel remains.

These interpretations are quite preliminary. Certainly with better contextual information and finer chronological control, more could be said about these samples and the trends through time they reflect.

APPENDIX: RAW DATA
CODES USED FOR WILA JAWIRA COMPUTER INPUT:

IDNO = This is used for identification in the botanical lab
SITE
CUADRA
NIVEL = level
SPECIMEN = the bag number assigned in the field
UNIDAD1 = The North unit designation
UNIDAD2 = The East unit designation
RASGO = feature
FLOTNUM = The flot number assigned in the field
FLOTVOL = Volume of sample in liters (as collected in the field)
LFPICK = Weight of carbon sorted out of the sample
COLLTYPE = whether sample is BULK (101) or PINCH (102). Screen material (1/4") is 201
CULTCONT = Three digit code for cultural context of sample. Check raw data sheet for definitions. This information is taken directly from tags on samples and/or field notes.
CARD/CRD/CRDNO/CARDNO = These are for data loading (ignore).
BOXSIZE= Size of storage box used for sample
YEAR= Year sample collected

Taxa names refer to different identifiable plant parts:

LRGCHENO = *Chenopodium* spp. L. seeds larger than 1.18 mm
SMLCHENO = *Chenopodium* spp. seeds smaller than 1.18mm
LUMP = Unidentifiable fragment of charred plant tissue
SPOACEAE = Small Grass family seeds (Poaceae)
LPOACEAE = Large Grass family seeds (Poaceae)
WILDLEG = Wild seeds from the Bean family (Leguminosae or Fabaceae)
SCIRPUS = *Scirpus* spp. L. Seeds of tortora reeds
VERBENA = *Verbena* spp. L.
PLANTAGO = *Plantago* spp. L.
MALVACEA = Mallow family (Malvaceae)
RELBUN = *Relbunium* spp. Hook.
MPOACEAE = Medium Grass family seeds (Poaceae)
RUBUS = *Rubus* spp. L.
CYPERAC = Sedge family (Cyperaceae)
CRUCIFER = Mustard family (Cruciferae or Brassicaceae)
UNK224 = Unknown seed #224
POTAMOG = Pondweed, *Potamogeton* spp. (Tourn) L.
CEREUS = *Cereus* spp. Mill.
UNK264 = Unknown seed #264
MODPOPPY = Modern poppy seeds added as check on flot machine
AMARANTH = *Amaranthus* spp. L.
UNK270 = Unknown seed #270
UNK242 = Unknown seed #242
COMPOSIT = Sunflower family (Compositae or Asteraceae)
UNK265 = Unknown seed 265
LABIATAE = Mint family
KAINYA = Aymara name, scientific name unknown
UNK261 = Unknown 261
JUNCUS = *Juncus* spp. L.

CARYOPHL = Caryophyllaceae (Pink family)
UNK266 = Unknown 266
SOLANAC = Solanaceae seeds (Nightshade family)
NICOTIAN = *Nicotiana* spp. L.
SISYRINC = *Sisyrinchium* spp. L.
ZEAKERN= *Zea mays* L. kernels
ZEAEMBR = *Zea mays* embryos apart from kernels
COBCUP = *Zea mays* cob and cob fragments
CAPSICUM = *Capsicum* spp. L. Chili peppers
DOMLEGUM = Domesticated legumes exact genus unknown
POLYGON = Polygonaceae (Knotweed family)
OXALIS = *Oxalis* spp. L.
UNK202 = Unknown seed 202 (probably Borage family, Boraginaceae)
OENOTHER = *Oenothera* spp. L.
LSOLANAC = Large seeds of Nightshade family, possibly *Solanum* spp.
UNK271 = Unknown 271
UNK235 = Unknown 235
PORTULAC = *Portulaca* spp. L.
UNK201 = Unknown 201
TRITHORD = *Triticum* spp. L. (Wheat) or *Hordeum* spp. L. (Barley) both introduced by the Spanish from the Old World
CACTUS = Cactaceae, exact genus unknown
UNK279 = Unknown 279
UNIDSEED = Seeds too poorly preserved to identify to family level
TUBER = Domesticated tubers, exact taxon not identifiable
WOODCT = Count of wood fragments
WOODWT = Weight of wood fragments in grams
TWGBRNCH = Twig and branches (showing nodes)
STALK = Stalks
DUNG = Animal dung, type undefinable
LLAMADNG = Camelid dung
CUYDUNG = Cuy dung
WIRAKOA = Aymara name, leaves used in *Pachamama* rituals
LEAVES = Leaves, exact taxon unknown
TRITRACH = *Triticum* spp. or *Hordeum* spp. rachis
SORTTYPE = Number refers to sorting strategy used in the laboratory, see preceding pages
FAUNAL = 0= No bones or fish scales; 1= Bones and/or fish scales present

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S

1988
AK-E
Data Set

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPY	MODUMBEL
3511	TIW	AKE		06782	N7860	E5424	2	4320	0.3	2.1	101	420	1	.	4	6	9	.	6	.	.	.	2	.	.	.	.	.	.	.	1	.	2	.	.
3589	TIW	AKE		06802	N7860	E5424	2	4251	0.3	0.9	101	420	1	.	5	23	35	.	5	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
3512	TIW	AKE	007	08937	N7860	E5426		4296	1.3	0.1	101	626	1	.	2	1	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
3514	TIW	AKE	003	06965	N7860	E5428	1	4290	0.3	0.6	101	498	1	.	5	4	2	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
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3513	TIW	AKE		06986	N7860	E5428	3	4203	5.0	0.1	101	490	1	.	8	0	5	.	4	.	.	.	1	.	.	.	.	.	.	.	.	.	2	0	0
3517	TIW	AKE	004	06821	N7860	E5430		4230	1.0	0.3	101	.	1	.	4	3	1	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	2	.	.
3515	TIW	AKE		06790	N7860	E5430	1	4315	0.3	0.5	101	498	1	.	7	7	2	.	1	.	.	.	2	.	.	.	.	.	.	.	.	.	2	.	.
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3590	TIW	AKE	003	06682	N7860	E5432		4255	0.3	.	101	604	1	.	.	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
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3592	TIW	AKE		08909	N7862	E5424	4	4292	0.3	2.1	101	540	1	.	16	10	205	.	35	.	.	.	38	.	.	.	2	.	.	.	.	.	2	0	0
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3524	TIW	AKE		06799	N7862	E5428	2	4235	0.3	0.4	101	435	1	.	5	1	2	.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.

AMARANTH	UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
8	.	8	0.1	.	.	1	.	.	.	.	.	1	1	S	88	0	6		.	.
15	.	5	0.1	.	.	24	.	.	.	.	.	1	1	S	88	3	20		.	.
.	.	.	.	.	.	.	.	.	.	.	.	1	.	S	88	0	1		.	.
5	.	6	0.1	0	0	6	.	.	.	.	.	1	1	S	88	0	4		.	.
45	.	49	0.8	2	.	46	.	.	.	.	.	1	1	M	88	1	19		.	.
4	.	.	.	.	.	.	.	.	.	.	.	1	.	S	88	0	0		.	.
5	.	1	0.1	.	.	10	.	.	.	.	.	1	1	M	88	.	.		.	.
3	.	.	.	1	.	3	.	.	.	.	.	1	.	S	88	1	6		.	.
11	.	4	0.1	.	.	.	.	.	.	.	.	1	1	S	88	0	7		.	.
.	.	.	.	.	.	.	.	.	.	.	.	1	.	S	88	0	0		.	.
.	.	1	0.1	.	.	.	.	.	.	.	.	1	.	S	88	0	0		.	.
20	.	22	0.2	3	.	1	.	.	.	.	.	1	1	M	88	1	5		.	.
3	.	4	0.1	1	.	.	.	.	.	.	.	1	1	S	88	0	2		.	.
10	.	11	0.1	.	.	.	.	.	.	.	.	1	1	S	88	0	25		.	.
338	.	72	0.7	63	.	673	.	.	.	.	.	2	1	L	88	7	240		.	.
65	.	.	.	6	.	116	.	.	.	.	.	1	1	M	88	0	10		.	.
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4	.	2	0.1	.	.	8	.	.	.	.	.	1	1	S	88	0	3		.	.
6	.	3	0.1	.	.	.	.	.	.	.	.	1	1	S	88	0	1		.	.

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                          S                                        C   C     L  S      S L          P M    M     C             M  M A
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         C                E       N       N       L     L     L    L   L     G  L      O O  I C E A L R O     Y U U O C U      D  D A
         U     N          C       I       I   R   O     O     F    L   T     C  C      A A  L I R N V E A R P C N T E N        P  U R
 I   S   A     I          I       D       D   A   T     T     P    T   C  C  H  H  L   C C  D R B T A L C U E I K A R K        O  M A
 D   I   D     V          M       A       A   S   N     V     I    Y   O  A  E  E  U   E E  L P E A C B E B R F 2 M E 2 C      P  B N
 N   T   R     E          E       D       D   G   U     O     C    P   N  R  N  N  M   A A  E U N G E U A U A E 2 O U 6 R      P  E T
 O   E   A     L          N       1       2   O   M     L     K    E   T  D  O  O  P   E E  G S A O A N E S C R 4 G S 4 D      Y  L H

3525 TIW AKE     06774 N7862 E5430    4206 2.3    .  101 620 1 .  .  0   . .  . . . . . . . . . . . . . . . . . 2  .  .  .
3438 TIW AKE 003 06764 N7862 E5432    4036 5.0 0.5 101 604 1 2  1  2   5 .  . . . . . . . . . . . . . . . . . 2 45 30 .
3526 TIW AKE     06925 N7862 E5432 2 4127 4.4 1.5 101 604 1 .  6  2   8 .  . . . . 2 . . . . . . . . . . . . 2  .  .  .
3527 TIW AKE     06998 N7864 E5426 1 4375 0.3 0.4 101 700 1 . 13 21 16 . 12 . . . . . . . . 1 . . . . . . . . 2  .  .  .
3439 TIW AKE     08801 N7864 E5426 2 4052 0.3 0.7 101 420 1 . 15  5   8 .  4 . . . 2 . . . . . . . . . . . . 2  .  .  .

    C  L            C    N S        C D          O L     P   T     U          T      L       T S               P
    O  A            A   S I I Z Z   A O   P      E S     O   R     N          W      L C W   R O   B    L  S    E
U U M U B K U J U R U O C S E E C P M   O O U N O U U R U I C C I   W  W  G    A U I L I R F O   R  M  U D
N N P N I A N U N Y N L O Y A A O S L C L X N O L N N T N T A A D T O  O  B S  M Y R E T T A X   G  L P N U
K K O K A I K N K O K A T R K E B I E R Y A K T A K K U K H C R S U O  O  R T D A D A A R T U S Y L  L H K N
2 2 S 2 T N 2 C 2 P 2 N I I E M C C G D G L 2 H N 2 2 L 2 O T D E B D  D  N A U D U K V A Y N I E U  U A 2 C
7 4 I 6 A Y 6 U 4 H 6 A A N R B U U U N O I O E A 7 3 A O R U N E E C  W  C L N N N O E C P A Z A M  M S 7 L
0 2 T 5 E A 1 S 8 L 6 C N C N R P M M O N S 2 R C 1 5 C 1 D S O D R T  T  H K G G G A S H E L E R P  P E 9 E

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   SAS CIRCLE
   PO BOX 8000
   CARY, N.C. 27512-8000

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DS PUNCHED @ $8.00 PER 1000 CARDS.............. NA*
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ILABLE AT THIS TIME
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AK-E
1989
Data Set

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL
3482	TIW	AKE	002	15790	N7845	E5426		4507	6.3	0.0	101	298	1	.	.	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
3486	TIW	AKE	003	17204	N7845	E5426		4531	6.3	0.1	101	.	1	.	1	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
3577	TIW	AKE	002	12899	N7845	E5430		4229	6.3	0.4	101	298	1	.	7	3	12	.	2	.	.	.	1	.	.	.	.	.	1	.	.	1	2	.	.
3563	TIW	AKE	002	12804	N7845	E5432		4143	6.3	0.4	101	.	1	.	3	0	3	.	1	.	.	.	2	.	.	.	.	.	.	.	.	.	2	46	.
3462	TIW	AKE	002	12946	N7847	E5430		4378	6.3	0.5	101	298	1	.	3	0	13	.	2	.	.	.	1	.	.	.	2	.	.	.	.	.	2	.	.
3463	TIW	AKE	002	12947	N7847	E5430		4332	6.3	0.5	102	298	1	.	17	1	18	1	3	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.
3503	TIW	AKE	002	15794	N7849	E5426		4499	5.7	6.0	101	604	1	.	16	160	.	.	2	.	.	.	6	.	.	.	.	.	.	.	.	8	2	.	.
3509	TIW	AKE		18902	N7849	E5426	1	4556	6.3	3.5	101	415	1	4	160	141	1600	0	144	8	0	0	0	0	0	8	8	0	0	0	0	8	2	0	0
3578	TIW	AKE	002	14643	N7849	E5428		4241	6.3	0.4	101	298	1	.	65	8	40	.	5	.	.	.	5	.	.	.	.	.	.	.	.	2	2	.	.
3609	TIW	AKE		18898	N7849	E5428	WEST	4540	6.3	3.4	102	415	1	2	108	41	600	.	101	.	2	.	4	6	.	.	4	.	.	.	.	20	2	.	.
3510	TIW	AKE		18895	N7849	E5428	1	4533	6.3	2.6	102	415	1	.	104	158	232	.	3	.	2	.	32	.	.	.	8	16	.	.	16	.	2	.	.
3564	TIW	AKE	002	12841	N7849	E5432		4107	6.3	0.8	101	298	1	1	20	8	70	2	6	0	1	0	3	0	0	0	4	.	.	.	.	.	2	0	0
3579	TIW	AKE	003	12847	N7849	E5432		4169	6.3	3.1	101	220	1	.	100	41	150	4	20	0	1	.	.	.	.	0	5	.	.	.	.	1	2	.	.
3443	TIW	AKE	002	14638	N7851	E5428		4252	6.3	1.1	101	220	1	.	68	7	110	2	13	.	2	.	7	.	.	2	8	.	.	.	.	4	2	.	.
3626	TIW	AKE	002	14635	N7851	E5428		4245	5.7	0.8	101	220	1	0	44	11	55	0	12	0	0	0	7	0	0	0	3	0	0	0	0	1	2	0	0
3580	TIW	AKE	002	12930	N7851	E5430		4401	6.3	0.5	101	220	1	.	3	2	7	.	4	.	1	.	.	.	.	.	.	.	.	.	.	.	2	.	.
3458	TIW	AKE	002	12860	N7851	E5432		4096	6.3	1.2	101	220	1	1	68	34	162	1	19	.	1	.	5	.	.	1	7	.	1	.	.	3	2	.	.
3459	TIW	AKE	003	12876	N7851	E5432		4344	5.7	1.8	101	220	1	6	77	19	258	1	38	.	.	.	8	.	.	.	11	.	.	.	.	.	2	.	.
3460	TIW	AKE	003	12880	N7851	E5432		4338	5.7	1.4	101	220	1	1	92	17	146	8	47	.	.	.	10	6	.	.	2	.	.	.	.	.	2	.	.

AMARANTH	UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	1	.	L	89	0	0		.	.
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0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	15	.	9	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	8		.	.
.	1	0	1	5	0	0	0	0	0	0	0	0	2	0	0	0	2	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	70	.	83	1.4	.	.	.	.	.	.	.	.	1	.	M	89	1	40		.	.
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0	0	0	0	3	0	0	0	0	.	0	0	0	0	0	0	0	0	0	0	3	.	.	.	.	.	.	.	.	.	.	.	4	20	0	6	0.1	0	0	0	0	0	0	0	0	1	1	L	89	0	11		.	.
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IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
3480	TIW	AKE	002	15686	N7853	E5426		4349	5.7	2.0	101	298	1	.	70	27	75	2	22	.	.	.	3	1	.	.	3	.	.	.	.	3	2	.	.	.
3817	TIW	AKE		17280	N7853	E5426	1A	4568	3.8	1.3	101	.	1	3	70	40	90	3	18	.	1	.	14	4	.	.	2	.	.	.	.	.	2	.	.	.
3821	TIW	AKE		17282	N7853	E5426	1B	4604	2.5	1.8	101	.	1	1	87	23	67	3	14	.	3	.	20	4	.	.	10	.	.	.	.	1	2	.	.	.
3820	TIW	AKE	1B	17281	N7853	E5426	1B	4619	6.3	9.6	101	.	1	12	108	67	104	8	36	.	.	.	44	.	.	.	12	.	.	.	.	4	2	.	.	.
3493	TIW	AKE		18936	N7853	E5426	2	4584	6.3	5.2	101	415	1	64	710	360	780	20	234	.	.	.	70	90	.	.	60	.	.	.	.	10	2	.	.	.
3826	TIW	AKE	N	17284	N7853	E5426	2	4685	6.3	1.9	101	.	1	22	528	180	392	8	104	.	.	.	24	8	8	.	20	.	.	.	.	.	2	.	.	.
3818	TIW	AKE		20002	N7853	E5426	3	4623	6.3	2.4	101	.	1	1	112	50	102	10	46	.	2	.	16	.	.	.	6	.	.	.	.	4	2	.	.	.
3461	TIW	AKE	002	12992	N7853	E5428		4199	6.3	1.0	101	220	1	.	16	17	57	.	2	.	.	.	2	2	.	.	2	.	.	.	.	2	2	.	.	.
3583	TIW	AKE		12890	N7853	E5430		4326	6.3	.	101	.	1	.	.	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3582	TIW	AKE	003	18847	N7853	E5430		4547	6.3	0.9	101	298	1	1	15	7	25	.	9	.	.	.	7	.	.	1	1	.	.	.	.	.	2	.	.	.
3581	TIW	AKE		18957	N7853	E5430	1	4582	6.3	1.5	101	412	1	3	80	15	56	1	16	1	2	0	11	.	.	.	10	0	3	0	1	1	2	.	.	.
3373	TIW	AKE		14740	N7855	E3430	1	4270	2.6	16.7	101	415	1	.	.	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3374	TIW	AKE		18894	N7855	E3430	1	4532	5.7	3.7	102	415	1	15	228	160	523	9	50	.	.	.	31	2	4	.	16	8	.	1	2	.	2	.	.	.
3584	TIW	AKE	002	15765	N7855	E5424		4516	6.3	0.5	101	298	1	.	9	5	40	.	7	.	.	.	2	.	.	.	.	.	.	.	.	1	2	.	.	.
3487	TIW	AKE		17283	N7855	E5426	1	4637	6.3	2.3	101	415	1	6	112	25	112	4	74	.	4	.	16	.	.	.	12	.	4	.	.	.	2	.	.	.
3565	TIW	AKE		17268	N7855	E5428	1	4567	1.3	1.3	101	412	1	.	23	26	.	.	15	.	.	.	3	.	.	.	1	.	.	.	.	.	2	.	.	.
3627	TIW	AKE		18913	N7855	E5428	2	4590	6.3	2.3	101	415	1	3	180	43	350	2	110	.	3	.	32	.	.	.	10	40	.	.	1	2	2	.	.	1
3585	TIW	AKE	003	18830	N7855	E5430		4553	6.3	1.1	101	297	1	1	19	7	21	2	7	.	.	.	6	1	.	.	.	.	.	.	.	.	2	.	.	.
3610	TIW	AKE		14739	N7855	E5430	1	4278	2.6	7.8	101	415	1	.	.	1	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.

UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
2	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	40	.	28	0.6	1	.	.	.	.	.	.	.	1	1	L	89	2	25		.	.
1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	35	.	12	0.2	.	.	4	.	.	.	.	.	1	1	S	89	0	40		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	33	1	12	0.1	.	.	23	.	.	.	.	.	2	1	S	89	2	21		.	.
.	.	.	8	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	120	.	29	0.2	3	.	98	.	.	.	.	.	2	1	M	89	1	66		.	.
30	10	.	24	.	1	.	.	.	.	.	.	.	.	14	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	560	.	63	0.7	17	.	660	4	.	.	.	.	2	.	L	89	30	330		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	25	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	400	.	11	0.1	11	.	3	.	.	.	.	.	2	1	M	89	9	171		.	.
.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	55	.	43	0.6	5	.	23	.	.	.	.	.	2	1	M	89	3	47		.	.
2	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	15	.	12	0.2	.	.	.	.	.	.	.	.	1	1	M	89	1	16		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	1	.	L	89	0	0		.	.
.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	8	.	4	0.1	.	.	.	.	.	.	.	.	1	1	M	89	1	6		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	40	.	12	0.1	16	.	.	.	.	.	.	.	1	1	M	89	1	14		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	.	.	1331	14.7	.	.	.	.	.	.	.	.	1	1	M	89	0	0		.	.
.	3	.	2	.	.	.	.	.	.	.	.	1	3	2	2	1	.	.	3	.	.	.	.	.	.	.	.	1	.	.	4	102	.	131	1.9	12	.	4	.	.	.	.	.	2	1	M	89	20	140		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	5	.	8	0.1	.	.	.	.	.	.	.	.	1	1	L	89	0	5		.	.
.	.	.	3	.	.	.	.	.	.	.	4	.	.	2	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	1	4	32	.	39	0.5	.	.	17	.	.	.	.	.	2	1	M	89	3	22		.	.
.	0	0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	44	.	5	0.1	1	.	7	.	.	.	.	.	1	.	S	89	1	25		.	.
9	4	.	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	90	2	27	0.2	4	.	80	.	.	.	3	.	1	1	L	89	3	40		.	.
.	.	.	5	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	12	.	4	0.1	1	.	.	.	.	.	.	.	1	1	M	89	0	7		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	0	0	0	0	0	0	0	0	0	0	0	4	.	.	426	7.6	.	.	.	.	.	.	.	.	1	1	M	89	0	1		.	.

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK204	POTAMOG	CEREUS	UNK264	CRD	MODPOPY	MODUMBEL
3612	TIW	AKE	002	14682	N7855	E5432		4397	5.7	1.1	101	298	1	.	40	18	54	1	24	.	3	.	12	1	.	.	10	.	.	.	.	3	2	.	.
3613	TIW	AKE	003	18816	N7855	E5432		4561	6.3	1.4	101	298	1	4	77	20	132	2	28	.	1	.	11	.	.	2	5	.	.	.	1	2	2	.	.
3611	TIW	AKE		18897	N7855	E5432	1	4536	6.3	5.7	102	415	1	20	528	284	272	.	136	.	.	.	72	8	.	8	184	.	8	.	24	.	2	.	.
3481	TIW	AKE	002	15705	N7857	E5424		4354	5.7	2.5	101	298	1	13	40	93	152	.	232	.	16	.	8	.	.	.	32	.	.	.	.	8	2	.	.
3628	TIW	AKE		18939	N7857	E5424	1	4576	2.5	6.5	101	412	1	4	504	247	136	8	82	.	4	.	8	4	.	.	56	.	.	.	.	16	2	.	.
3492	TIW	AKE		18903	N7857	E5426	1	4559	6.3	3.5	102	415	1	3	144	304	156	.	76	.	.	.	4	4	.	11	20	.	.	.	.	8	2	.	.
3587	TIW	AKE	002	14715	N7857	E5428		4337	6.3	1.3	101	604	1	.	70	35	100	5	24	.	1	.	15	.	.	1	7	.	.	.	1	3	2	.	.
3479	TIW	AKE	003	15609	N7857	E5428		4304	6.3	2.2	101	604	1	2	75	21	140	.	16	.	1	.	6	3	.	.	5	.	2	.	.	.	2	.	.
3588	TIW	AKE	003	15616	N7857	E5428		4317	6.3	2.4	102	240	1	4	76	40	85	.	20	.	.	.	15	1	.	.	3	.	.	.	.	.	2	.	.
3586	TIW	AKE		20007	N7857	E5428	2	4639	6.3	5.6	101	297	1	18	536	416	1600	50	363	.	416	.	584	112	8	16	408	.	.	.	.	64	2	0	0
3476	TIW	AKE	002	14749	N7857	E5430		4269	6.3	0.8	101	298	1	.	13	0	11	.	6	.	.	.	2	.	.	.	2	.	.	.	.	1	2	45	.
3444	TIW	AKE	003	14791	N7857	E5430		4284	6.3	0.3	101	604	1	.	3	0	2	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.
3451	TIW	AKE	004	15605	N7857	E5430		4313	6.3	0.2	101	604	1	2	2	0	7	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.
3452	TIW	AKE	004	15608	N7857	E5430		4316	6.3	0.9	102	604	1	3	46	31	32	3	31	.	.	.	17	.	.	.	1	.	.	.	.	.	2	.	.
3566	TIW	AKE	002	15612	N7857	E5434		4291	6.3	0.5	101	298	1	.	13	2	28	.	12	.	.	.	2	.	.	.	1	.	.	.	.	.	2	.	.
3567	TIW	AKE	003	18884	N7857	E5434		4600	6.3	1.2	101	.	1	2	30	21	48	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
3445	TIW	AKE	002	14786	N7859	E5428		4258	5.7	0.8	101	.	1	2	77	14	80	3	4	.	.	.	6	.	.	.	1	.	.	.	.	2	2	.	.
3568	TIW	AKE	002	15652	N7859	E5434		4374	6.3	0.5	101	412	1	.	13	2	12	2	5	.	.	.	4	.	.	1	1	0	1	.	.	.	2	.	.
3591	TIW	AKE	002	15168	N7861	E5434		4348	6.3	2.2	101	604	1	1	3	1	14	.	1	.	.	.	.	.	.	.	3	.	.	.	.	1	2	.	.

AMARANTH	UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	0	0	0	0	0	0	0	0	0	0	0	4
.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	1	.	2	.	.	3	0	0	0	0	0	8	0	0	0	0	0	4
.	24	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	.	24	.	.	.	.	.	.	.	.	.	.	.	.	33	11	.	.	.	3	0	0	4	0	0	0	0	0	0	0	0	4
4	12	4	.	.	.	.	.	.	11	.	.	.	.	.	2	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	2	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	1	.	.	.	.	.	.	.	.	4
0	2	0	0	1	0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	48	24	.	3	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
25	.	15	0.1	1	.	.	.	.	.	.	.	1	.	M	89	0	18		.	.
43	.	17	0.3	1	.	.	.	.	.	.	.	1	1	S	89	0	20		.	.
244	.	200	1.4	14	0	1288	0	0	0	8	.	2	1	L	89	14	270		.	.
104	.	47	0.6	3	.	.	.	.	.	.	.	2	.	M	89	0	93		.	.
242	.	35	0.5	2	.	260	.	.	.	.	.	2	.	L	89	11	236		.	.
81	2	131	1.0	5	.	292	.	.	.	8	.	2	1	M	89	16	288		.	.
50	.	27	0.3	.	.	.	.	.	.	.	.	1	1	M	89	0	35		.	.
40	.	51	0.7	.	.	.	.	.	.	.	.	1	1	M	89	21	0		.	.
30	.	76	1.0	.	.	5	.	.	.	.	.	1	1	M	89	10	30		.	.
920	.	115	1.1	13	0	738	0	0	0	9	.	2	1	L	89	16	400		.	.
15	.	15	0.4	.	.	.	.	.	.	.	.	1	1	L	89	0	0		.	.
.	.	.	.	.	.	.	.	.	.	.	.	1	1	M	89	0	0		.	.
6	.	1	0.1	.	.	.	.	.	.	.	.	1	.	S	89	.	.		.	.
50	.	8	0.1	3	.	.	.	.	.	.	.	1	1	M	89	1	30		.	.
4	.	10	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	2		.	.
.	.	19	0.2	2	.	.	.	.	.	.	.	1	1	S	89	2	19		.	.
30	.	5	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	14		.	.
13	.	3	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	2		.	.
5	.	30	0.8	.	.	.	.	.	.	.	.	1	.	M	89	0	1		.	.

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
3446	TIW	AKE	002	14965	N7864	E5430		4264	6.3	0.7	101	604	1	.	11	5	15	.	1	.	.	.	1	.	.	.	.	.	.	.	.	1	2	.	.	.
3593	TIW	AKE	003	15035	N7864	E5430		4275	6.3	0.9	101	604	1	.	41	23	29	.	5	.	.	.	4	.	.	.	3	.	.	.	.	1	2	.	.	.
3594	TIW	AKE	004	15065	N7864	E5430		4285	5.7	0.9	101	604	1	.	32	60	34	1	16	.	.	.	4	1	.	.	2	.	.	.	1	3	2	.	.	.
3595	TIW	AKE	005	15090	N7864	E5430		4260	6.3	0.9	101	604	1	.	19	8	23	1	9	.	.	.	1	.	.	.	1	.	.	.	.	.	2	.	.	.
3596	TIW	AKE	006	18250	N7864	E5430		4594	6.3	0.9	101	604	1	.	6	28	9	1	3	.	.	.	.	.	.	0	2	.	.	.	.	1	2	0	0	0
3529	TIW	AKE	002	15001	N7864	E5432		4379	4.4	0.9	101	620	1	.	9	19	52	.	17	.	.	.	1	1	.	.	1	.	.	.	1	1	2	.	.	.
3531	TIW	AKE	003	15052	N7864	E5432		4261	6.3	0.6	101	604	1	1	4	8	9	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3532	TIW	AKE	004	15058	N7864	E5432		4257	5.7	0.2	101	604	1	.	.	1	.	.	1	.	.	.	.	.	.	.	1	.	.	.	.	.	2	.	.	.
3450	TIW	AKE	005	15101	N7864	E5432		4266	6.3	0.1	101	604	1	1	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3533	TIW	AKE		15149	N7864	E5432	JEM	4310	5.7	7.9	101	415	1	18	360	1148	1600	36	.	.	8	.	63	56	0	8	48	.	.	.	.	24	2	.	.	.
3534	TIW	AKE		15150	N7864	E5432	JEM	4319	2.5	1.4	101	415	1	.	45	125	100	1	28	.	1	.	7	4	.	.	8	.	.	.	1	2	2	.	.	.
3528	TIW	AKE			N7864	E5432	1	4543	6.3	6.7	102	415	1	4	88	294	680	.	65	.	.	.	.	16	.	.	24	.	.	.	.	.	2	0	0	0
3530	TIW	AKE			N7864	E5432	1	4554	6.3	2.9	102	415	1	2	96	197	360	.	41	8	.	.	16	16	.	.	16	.	.	.	.	.	2	.	.	.
3629	TIW	AKE	005	20304	N7864	E5434	1	4660	6.3	2.2	101	412	1	3	204	347	280	5	96	.	8	.	28	12	4	.	16	.	.	.	8	4	2	.	.	.
3442	TIW	AKE	002	13274	N7866	E5428		4192	6.3	0.8	101	620	1	1	19	9	30	1	5	.	.	.	2	.	.	.	2	.	.	.	.	.	2	.	.	.
3447	TIW	AKE	003	15017	N7866	E5428		4272	5.7	0.5	101	604	1	.	25	2	45	.	11	.	.	.	.	.	.	.	5	.	.	.	.	.	2	.	.	.
3448	TIW	AKE	004	15031	N7866	E5428		4273	6.3	1.8	101	604	1	4	82	13	100	.	38	.	1	.	7	.	2	.	21	.	.	.	.	2	2	.	.	.
3453	TIW	AKE	005	15265	N7866	E5428		4566	6.3	2.7	101	604	1	3	127	43	75	2	45	.	1	.	16	1	.	.	12	.	.	.	.	1	2	.	.	.
3455	TIW	AKE	006	18341	N7866	E5428		4563	6.3	3.9	101	604	1	4	170	84	135	1	36	.	2	.	15	2	.	1	8	.	.	.	3	3	2	49	.	5

UNK2270	UNK2242	COMPOSIT	UNK2265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	5	.	20	0.2	.	.	.	.	.	.	.	.	1	1	M	89	0	5		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	15	.	19	0.2	1	.	.	.	.	.	1	.	1	1	M	89	3	20		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	13	.	18	0.1	.	.	.	.	.	.	.	.	1	1	S	89	0	60		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	15	.	29	0.2	.	.	8	.	.	.	1	.	1	1	M	89	0	8		.	.
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	.	.	.	.	.	.	.	.	.	.	.	4	10	.	2	0.1	1	.	3	.	.	.	.	.	1	.	S	89	0	28		.	.
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	10	.	11	0.1	.	.	.	.	.	.	.	.	1	1	S	89	3	16		.	.
.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	9	.	1	0.1	.	.	.	.	.	.	.	.	1	.	S	89	1	7		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	1	.	.	.	.	.	.	.	.	.	.	.	1	.	S	89	0	1		.	.
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42	.	.	.	8	.	.	.	.	.	.	.	.	.	3	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	522	.	58	0.8	37	.	1020	5	10	.	.	.	2	.	L	89	68	1080		.	.
.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	30	.	8	0.1	7	.	78	.	.	.	.	.	1	.	S	89	5	120		.	.
0	8	0	3	.	.	.	.	.	.	.	.	.	.	42	1	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	179	.	49	1.0	8	.	1395	1	.	.	.	.	2	1	L	89	14	280		.	.
.	.	.	11	.	.	.	.	.	.	.	.	.	.	3	3	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	99	.	39	0.2	16	0	550	.	.	.	.	.	2	.	M	89	11	186		.	.
8	.	.	1	.	.	.	.	.	.	.	.	.	.	4	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	185	9	16	0.2	2	.	3	.	.	.	.	.	2	1	M	89	12	335		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	9	.	9	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	9		.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	13	.	18	0.2	1	.	.	.	.	.	.	.	1	.	M	89	0	2		.	.
.	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	30	.	66	0.5	.	.	.	.	.	.	.	.	1	1	M	89	2	11		.	.
3	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	42	.	41	0.5	1	.	.	.	.	.	.	.	1	1	M	89	3	40		.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	60	.	193	2.0	.	.	4	.	.	.	.	.	1	1	M	89	4	80		.	.

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEAE	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	PUNK224	OTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
3467	TIW	AKE	002	13106	N7866	E5430		4156	6.3	2.3	101	604	1	.	45	12	70	.	9	.	1	.	2	1	.	.	1	.	.	.	.	3	2	.	.	1
3468	TIW	AKE	003	13112	N7866	E5430		4373	5.7	2.2	101	604	1	1	41	1	50	1	20	.	.	.	4	1	1	.	3	.	.	.	.	.	2	44	.	1
3470	TIW	AKE	004	13194	N7866	E5430		4396	5.0	0.1	101	604	1	.	3	0	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3471	TIW	AKE	005	13199	N7866	E5430		4386	5.7	0.1	101	604	1	.	2	0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3456	TIW	AKE	006	19202	N7866	E5430		4638	6.3	0.4	101	604	1	.	4	3	3	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1	2	.	.	.
3472	TIW	AKE	006	13204	N7866	E5430		4391	5.7	0.3	101	604	1	.	3	3	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	45	.	.
3457	TIW	AKE	007	19214	N7866	E5430		4603	6.3	0.2	101	604	1	2	24	5	17	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3473	TIW	AKE	007	13209	N7866	E5430		4381	6.3	0.2	101	604	1	.	4	1	1	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	2	.	.	.
3615	TIW	AKE	004	15118	N7866	E5432		4364	5.7	0.1	102	604	1	.	1	0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
3630	TIW	AKE	003	19346	N7866	E5434		4629	6.3	1.3	101	604	1	.	47	14	70	1	15	.	1	.	5	1	.	.	4	.	.	.	.	4	2	.	.	.
3491	TIW	AKE		18896	N7867	E5426	2	4535	6.3	2.9	102	.	1	2	120	546	400	10	57	.	24	.	8	.	.	.	24	.	.	.	.	.	2	.	.	8
3616	TIW	AKE	002	13309	N7868	E5428		4195	6.3	0.7	101	604	1	.	4	10	10	.	3	.	.	.	1	.	.	.	1	.	.	.	.	2	2	.	.	.
3617	TIW	AKE	004	15151	N7868	E5428		4351	5.0	0.9	101	.	1	.	40	18	78	.	21	.	1	.	.	1	.	.	7	.	.	.	.	5	2	.	.	.
3618	TIW	AKE	005	18276	N7868	E5428		4599	5.7	2.5	101	604	1	1	63	28	95	.	33	.	4	.	11	.	.	.	5	1	.	.	.	3	2	.	.	1
3619	TIW	AKE	007	18862	N7868	E5428		4598	6.3	1.1	101	604	1	5	68	7	27	.	4	.	.	.	3	1	.	.	6	.	.	.	.	.	2	48	.	.
3441	TIW	AKE	002	13124	N7868	E5430		4090	6.3	0.4	101	.	1	.	3	2	3	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	2	.	.	.
3490	TIW	AKE	006	18378	N7868	E5430		4595	6.3	2.0	101	604	1	.	7	4	9	.	2	.	.	.	1	.	.	.	.	.	.	.	.	1	2	.	.	.
3469	TIW	AKE	002	13130	N7868	E5432		4330	6.3	1.0	101	.	1	.	25	8	50	.	9	.	2	.	3	.	.	.	3	.	.	.	.	1	2	.	.	.
3464	TIW	AKE	003	13020	N7868	E5432		4152	6.3	0.2	101	.	1	.	3	0	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.

UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	8	.	40	0.5	1	.	.	.	.	.	.	.	1	.	M	89	2	10	.		.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	30	1	60	1.2	.	.	.	.	.	.	.	.	1	1	M	89	0	1	.		.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	1	1	S	89	0	0	.		.
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.	.	.	3	.	.	.	.	.	.	.	.	.	.	4	.	1	.	.	3	.	.	.	.	1	.	.	.	.	.	.	4	56	.	52	0.7	1	.	840	.	.	.	.	.	2	1	M	89	8	538	.		.
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2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	6	.	38	0.2	.	.	.	.	.	.	.	.	1	1	S	89	0	18	.		.
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.	1	0	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	18	.	8	0.1	1	.	13	.	.	.	.	.	1	.	S	89	0	7	.		.
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5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4	1	.	17	0.1	1	.	.	.	.	.	.	.	1	.	S	89	0	0	.		.

OBS	IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEAE	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	PUNK224	OTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
96	3496	TIW	AKE	004	19379	N7868	E5432		4642	6.3	0.6	101	.	1	.	9	45	11	.	1	.	.	.	.	.	.	.	2	.	.	.	.	.	2	44	.	.
97	3498	TIW	AKE	005	20212	N7868	E5432	1EAST	4645	6.3	1.8	101	.	1	2	200	386	176	1	120	.	80	.	16	.	.	.	561	.	.	.	.	.	2	.	.	.
98	3499	TIW	AKE	005	20213	N7868	E5432	1EAST	4646	6.3	3.1	101	.	1	12	224	315	200	9	169	.	88	.	24	.	.	.	442	.	.	.	.	.	2	.	.	.
99	3497	TIW	AKE	004	20201	N7868	E5432	2SOUTH	4631	4.4	2.9	101	.	1	4	48	108	250	3	38	.	3	.	16	3	.	1	38	.	.	.	.	.	2	.	.	.
00	3631	TIW	AKE	002	13236	N7868	E5434		4329	6.3	0.4	101	604	1	.	2	0	7	.	2	.	.	.	2	.	.	.	.	.	.	.	.	.	2	.	.	.
01	3474	TIW	AKE	002	13339	N7870	E5428		4367	6.3	0.8	101	620	1	1	1	0	7	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1	2	.	.	.
02	3449	TIW	AKE	003	15072	N7870	E5428		4281	6.3	0.9	101	620	1	.	11	3	43	.	10	.	1	.	4	.	1	.	1	.	.	.	.	1	2	.	.	.
03	3478	TIW	AKE	003	15075	N7870	E5428		4263	5.7	2.0	101	620	1	.	23	8	35	.	3	.	1	.	3	.	.	.	5	.	.	.	.	.	2	.	.	.
04	3488	TIW	AKE	004	18302	N7870	E5428		4552	6.3	2.1	101	604	1	1	44	4	112	5	50	.	3	.	9	2	.	.	7	.	.	.	.	1	2	.	.	.
05	3454	TIW	AKE	005	18310	N7870	E5428		4589	6.3	2.9	101	604	1	3	28	16	81	.	52	.	4	.	4	.	.	.	8	.	.	.	.	4	2	.	.	.
06	3494	TIW	AKE	007	19206	N7870	E5428		4583	6.3	1.4	101	604	1	1	97	10	88	5	48	.	1	.	15	1	.	.	6	.	.	.	.	6	2	.	.	.
07	3535	TIW	AKE		13148	N7870	E5430		4123	6.3	1.5	101	.	1	4	25	30	60	.	21	.	4	.	7	.	.	.	1	.	.	.	1	1	2	.	.	.
08	3536	TIW	AKE	002	13048	N7870	E5430		4160	6.3	0.3	101	.	1	1	4	1	14	.	1	.	.	.	3	.	.	.	.	.	.	.	.	.	2	.	.	.
09	3489	TIW	AKE	004	18317	N7870	E5430		4577	6.3	2.2	101	604	1	6	50	20	100	3	80	.	12	.	7	5	1	.	8	.	.	.	1	11	2	.	.	.
10	3495	TIW	AKE	005	19219	N7870	E5430		4587	6.3	1.6	101	604	1	.	15	4	40	.	20	.	4	.	.	.	.	.	2	.	.	.	.	3	2	.	.	.
11	3537	TIW	AKE	006	19239	N7870	E5430		4574	6.3	2.6	101	604	1	2	71	31	75	1	23	.	.	.	5	1	.	.	6	.	.	.	.	.	2	.	.	.
12	3538	TIW	AKE	007	19258	N7870	E5430		4614	6.3	0.6	101	604	1	.	8	4	3	.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.
13	3465	TIW	AKE	003	13054	N7870	E5432		4402	5.0	1.0	101	604	1	.	16	0	53	2	2	.	1	.	1	.	.	.	2	.	.	.	.	64	2	.	.	.
14	3466	TIW	AKE	003	13060	N7870	E5432		4011	6.3	2.1	101	604	1	2	26	38	93	.	31	.	1	.	4	1	.	.	5	.	.	.	.	10	2	.	.	.

OBS	UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO
96	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
97	16	16	.	.	.	24	.	.	.	.	.	.	.	.	28	2	.	.	1	3	.	.	.	.	1	.	.	.	.	.	.	4
98	24	.	.	.	.	.	.	.	.	.	.	.	.	.	7	8	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
99	2	.	.	.	.	.	.	.	.	.	.	1	.	.	4	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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01	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
02	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
03	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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07	.	1	0	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
08	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
09	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	1	.	.	.	.	.	.	.	.	4
10	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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14	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4

OBS	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
96	7	.	3	0.1	.	.	.	.	.	.	.	.	1	.	S	89	0	45		.	.
97	2	1	123	1.0	22	.	475	.	.	.	67	.	2	1	L	89	21	365		.	.
98	243	2	80	0.5	20	.	202	.	.	.	40	.	2	1	M	89	9	306		.	.
99	100	2	90	1.3	.	.	.	.	.	.	.	.	1	.	M	89	8	100		.	.
00	.	.	10	0.2	.	.	.	.	.	.	.	.	1	.	M	89	0	0		.	.
01	1	.	3	0.3	.	.	1	.	.	.	.	.	1	.	M	89	0	0		.	.
02	5	.	13	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	3		.	.
03	20	.	38	0.5	.	.	.	.	.	.	.	.	1	1	S	89	0	8		.	.
04	25	.	60	0.7	.	.	.	.	.	.	.	.	1	1	M	89	2	2		.	.
05	22	.	64	0.8	.	.	.	.	.	.	.	.	1	.	M	89	0	16		.	.
06	12	1	27	0.2	.	.	.	.	.	.	.	.	1	1	M	89	2	8		.	.
07	29	.	34	0.2	2	.	.	.	.	.	.	.	1	1	M	89	0	30		.	.
08	4	.	7	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	1		.	.
09	40	.	55	0.8	2	.	.	.	.	.	.	.	1	1	L	89	0	20		.	.
10	9	.	45	0.4	.	.	.	.	.	.	.	.	1	1	M	89	0	4		.	.
11	33	.	38	0.5	1	.	4	.	.	.	.	.	1	1	S	89	0	31		.	.
12	3	.	.	.	.	.	.	.	.	.	.	.	1	.	S	89	0	4		.	.
13	2	.	.	.	.	.	.	.	.	.	.	.	1	1	M	89	0	0		.	.
14	9	1	48	0.7	.	.	.	.	.	.	.	.	1	1	M	89	4	34		.	.

OBS	IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
15	3500	TIW	AKE	004	20247	N7870	E5432		4665	6.3	2.1	101	604	1	.	29	50	75	1	18	1	1	.	4	1	.	.	5	.	.	.	.	16	2	.	.	.
16	3569	TIW	AKE	002	13252	N7870	E5434		4387	6.3	0.6	101	604	1	.	3	13	41	.	4	.	.	.	4	.	.	2	2	.	.	.	.	3	2	.	.	.
17	3570	TIW	AKE	003	15139	N7870	E5434		4355	5.0	0.9	101	604	1	.	27	25	81	1	15	.	.	.	5	1	.	.	4	.	.	.	.	.	2	.	.	.
18	3540	TIW	AKE	002	13369	N7872	E5428		4254	5.7	0.3	101	50	1	.	.	3	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
19	3539	TIW	AKE	003	15083	N7872	E5428		4279	5.7	0.9	101	604	1	.	9	10	26	.	4	.	.	.	5	.	.	.	2	.	.	.	.	.	2	.	.	.
20	3541	TIW	AKE	005	18334	N7872	E5428		4539	6.3	1.3	101	604	1	.	48	10	35	.	.	.	.	.	9	1	.	.	3	0	0	3	.	2	2	.	.	.
21	3597	TIW	AKE	002	13070	N7872	E5432		4017	5.7	0.4	101	604	1	.	3	1	8	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
22	3571	TIW	AKE	003	13076	N7872	E5432		4009	5.7	0.3	101	604	1	.	3	3	8	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
23	3542	TIW	AKE	002	14806	N7874	E5428		4236	5.7	0.2	101	604	1	.	1	2	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	48	.	.
24	3543	TIW	AKE	003	15108	N7874	E5428		4322	6.3	0.6	101	604	1	.	6	1	25	.	5	.	.	.	1	.	.	.	2	.	.	.	.	.	2	.	.	.
25	3544	TIW	AKE	004	19264	N7874	E5428		4593	6.3	1.9	101	604	1	1	64	14	76	.	20	.	.	.	4	2	.	.	2	.	.	.	.	.	2	0	0	0
26	3545	TIW	AKE	005	19281	N7874	E5428		4575	6.3	2.7	101	604	1	2	52	22	59	.	21	0	5	0	2	.	.	.	6	1	.	.	.	7	2	0	0	0
27	3546	TIW	AKE	006	19297	N7874	E5428		4612	5.7	1.3	101	604	1	3	88	11	71	1	26	.	.	.	8	2	.	.	5	.	.	.	1	1	2	.	.	.
28	3508	TIW	AKE	007	19312	N7874	E5428		4572	6.3	1.9	101	604	1	2	76	19	60	.	16	.	.	.	8	4	.	.	.	.	.	.	4	.	2	.	.	.
29	3598	TIW	AKE	002	13182	N7874	E5430		4376	6.3	0.8	101	604	1	.	6	2	15	.	2	0	2	0	1	.	.	1	2	.	.	.	.	.	2	.	.	.
30	3572	TIW	AKE	003	13188	N7874	E5430		4324	6.3	0.4	101	.	1	.	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
31	3632	TIW	AKE	002	13319	N7874	E5434		4177	6.3	0.4	101	.	1	.	1	2	11	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
32	3633	TIW	AKE	003	15124	N7874	E5434		4301	5.7	0.5	101	604	1	.	16	4	41	1	14	.	3	.	.	.	.	.	.	.	.	.	.	4	2	.	.	.
33	3547	TIW	AKE	002	14900	N7876	E5430		4234	6.3	0.1	101	604	1	.	4	2	5	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	2	0	0	0

OBS	UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201
15	.	1	.	1	.	.	.	.	.	.	.	.	.	.	1	.	2	.	.	3	.	.	.	.	.	.	.	.	.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0	1	.	.	3	.	.	.	.	.	.	.	.	.
17	.	2	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.
18	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
19	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0	3	0	0	3	.	.	.	.	.	.	.	.	.
21	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
22	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
23	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
24	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
25	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.
26	0	0	0	0	0	1	.	.	.	.	.	.	.	.	3	.	.	.	.	3	.	.	.	.	.	.	.	.	.
27	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.
28	4	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.
29	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.
31	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
33	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.

OBS	TRITHORD	CACTUS	CARDNO	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
15	.	.	4	14	2	37	0.4	.	.	.	.	.	.	.	.	1	1	M	89	5	45		.	.
16	.	.	4	3	.	7	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	13		.	.
17	.	.	4	42	.	10	0.1	.	.	.	.	.	.	.	.	1	1	S	89	0	25		.	.
18	.	.	4	1	.	.	.	.	.	.	.	.	.	.	.	1	.	S	89	0	3		.	.
19	.	.	4	12	.	18	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	10		.	.
20	.	.	4	23	.	9	0.1	.	.	.	.	.	.	.	.	1	1	S	89	1	9		.	.
21	.	.	4	2	.	3	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	1		.	.
22	.	.	4	1	.	9	0.1	.	.	.	.	.	.	.	.	1	1	S	89	0	3		.	.
23	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	1	1	M	89	0	2		.	.
24	.	.	4	7	.	1	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	1		.	.
25	.	.	4	26	.	30	0.4	6	.	.	.	.	.	.	.	2	1	M	89	0	14		.	.
26	.	.	4	25	.	43	1.0	21	.	5	.	.	.	.	.	1	1	M	89	2	20		.	.
27	.	.	4	31	.	17	0.2	4	.	.	.	.	.	.	.	1	1	S	89	1	10		.	.
28	.	.	4	29	.	38	0.5	2	.	2	.	.	.	.	.	2	1	M	89	0	19		.	.
29	.	.	4	4	.	4	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	2		.	.
30	.	.	4	3	.	7	0.1	.	.	.	.	.	.	.	.	1	.	S	89	0	3		.	.
31	.	.	4	3	.	5	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	2		.	.
32	.	.	4	11	.	14	0.2	.	.	.	.	.	.	.	.	1	1	M	89	0	4		.	.
33	.	.	4	.	.	.	.	1	.	.	.	.	.	.	.	1	.	M	89	0	2		.	.

OBS	IDNO	SITE	CUADREAL	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
34	3548	TIW	AKE	003	15805	N7876	E5430		4394	5.0	0.7	101	604	1	.	12	12	35	.	11	.	.	.	4	1	.	0	.	0	1	.	.	.	2	0	0	0
35	3620	TIW	AKE	002	14890	N7876	E5432		4231	5.7	0.1	101	.	1	.	3	0	8	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	2	.	.	.
36	3622	TIW	AKE	003	15176	N7876	E5434		4393	5.0	0.8	101	604	1	.	13	4	36	.	7	.	2	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.
37	3501	TIW	AKE	002	14863	N7878	E5428		4238	5.7	0.4	101	604	1	.	1	2	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	.	.	.
38	3504	TIW	AKE	003	15825	N7878	E5428		4384	5.7	0.8	101	604	1	.	8	3	28	.	7	.	.	.	.	.	.	.	1	.	.	.	.	.	2	.	.	.
39	3599	TIW	AKE	003	15811	N7878	E5430		4360	5.7	0.5	101	604	1	.	12	4	38	.	10	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.
40	3623	TIW	AKE	002	14916	N7878	E5432		4228	5.7	0.1	101	604	1	.	1	0	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	.	.	.
41	3621	TIW	AKE	003	15183	N7878	E5432		4331	5.7	0.9	101	604	1	1	11	5	29	.	8	.	.	.	4	1	.	.	1	.	.	.	.	2	2	.	.	.
42	3634	TIW	AKE	003	15198	N7878	E5432		4325	6.3	2.5	101	604	1	.	18	3	41	.	6	.	3	.	3	.	.	.	2	.	.	.	.	.	2	.	.	.
43	3475	TIW	AKE	002	13391	N7878	E5434		4372	5.7	0.8	101	604	1	.	12	6	20	.	5	.	.	.	3	.	.	.	.	.	.	.	.	2	2	.	.	.
44	3477	TIW	AKE	003	15191	N7878	E5434		4362	5.0	0.8	101	604	1	.	12	13	45	1	12	.	.	.	1	1	.	.	2	.	2	.	.	2	2	.	.	.
45	3502	TIW	AKE	003	15194	N7878	E5434		4357	5.7	0.8	101	604	1	1	27	9	50	.	8	.	.	.	5	1	.	.	.	.	.	.	1	3	2	.	.	.
46	3600	TIW	AKE	002	15860	N7880	E5428		4426	5.7	0.6	101	604	1	1	17	2	30	.	5	.	.	.	8	1	1	0	1	.	.	.	.	.	2	.	.	.
47	3601	TIW	AKE	003	15867	N7880	E5428		4620	6.3	0.8	101	604	1	.	51	6	55	1	11	0	3	.	6	.	.	1	3	.	.	.	.	.	2	0	0	0
48	3602	TIW	AKE	003	15949	N7880	E5430		4510	6.3	1.0	101	604	1	.	33	3	35	.	6	.	1	.	1	.	.	.	.	.	.	.	.	1	2	.	.	.
49	3485	TIW	AKE	002	15972	N7880	E5432		4490	6.3	0.6	101	604	1	.	5	8	35	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
50	3819	TIW	AKE	3	15987	N7880	E5432		4446	5.7	1.7	101	.	1	.	23	13	65	1	10	.	1	.	5	1	.	.	3	.	.	.	.	.	2	.	.	.
51	3505	TIW	AKE	002	16840	N7882	E5430		4438	6.3	1.1	101	604	1	.	11	5	9	.	7	.	.	.	3	.	.	.	4	.	1	.	.	.	2	50	.	.
52	3506	TIW	AKE	003	16914	N7882	E5430		4683	6.3	2.1	101	.	1	.	30	16	52	.	18	.	2	.	5	2	.	.	8	.	1	.	.	1	2	.	.	.

OBS	UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO
34	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	.	.	.	.	3
35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
37	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
38	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3
39	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
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48	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
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50	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
51	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
52	2	.	.	1	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3

OBS	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO	UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
34	.	.	.	.	.	.	.	.	.	.	.	4	.	.	7	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	12		.	.
35	.	.	.	.	.	.	.	.	.	.	.	4	2	.	.	.	1	.	.	.	.	.	.	.	1	.	M	89	0	0		.	.
36	.	.	.	.	.	.	.	.	.	.	.	4	15	.	9	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	4		.	.
37	.	.	.	.	.	.	.	.	.	.	.	4	2	.	.	.	.	.	.	.	.	.	.	.	1	.	M	89	0	2		.	.
38	.	.	.	.	.	.	.	.	.	.	.	4	5	.	7	0.1	.	.	.	.	.	.	.	.	1	.	M	89	0	3		.	.
39	.	.	.	.	.	.	.	.	.	.	.	4	7	.	7	0.2	.	.	.	.	.	.	.	.	1	1	M	89	3	1		.	.
40	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	1	.	M	89	0	0		.	.
41	.	.	.	.	.	.	.	.	.	.	.	4	2	.	15	0.2	.	.	.	.	.	.	.	.	1	1	M	89	0	5		.	.
42	.	.	.	.	.	.	.	.	.	.	.	4	5	.	63	1.2	.	.	.	.	.	.	.	.	1	1	M	89	0	3		.	.
43	.	.	.	.	.	.	.	.	.	.	.	4	7	.	5	0.1	.	.	.	.	.	.	.	.	1	.	M	89	1	5		.	.
44	.	.	.	.	.	.	.	.	.	.	.	4	19	.	10	0.1	.	.	.	.	.	.	.	.	1	1	S	89	0	13		.	.
45	.	.	.	.	.	.	.	.	.	.	.	4	16	.	25	0.2	.	.	.	.	.	.	.	.	1	1	S	89	0	9		.	.
46	.	.	.	.	.	.	.	.	.	.	.	4	9	.	7	0.1	.	.	.	.	.	.	.	.	1	1	M	89	0	2		.	.
47	.	.	.	.	.	.	.	.	.	.	.	4	20	.	6	0.1	.	.	.	.	.	.	.	.	1	1	M	89	1	5		.	.
48	.	.	.	.	.	.	.	.	.	.	.	4	9	.	28	0.3	.	.	.	.	.	.	.	.	1	1	M	89	0	3		.	.
49	.	.	.	.	.	.	.	.	.	.	.	4	5	.	8	0.1	.	.	.	.	.	.	.	.	1	.	M	89	1	7		.	.
50	.	.	.	.	.	.	.	.	.	.	.	4	14	.	25	0.5	.	.	.	.	.	.	.	.	1	1	M	89	0	13		.	.
51	.	.	.	.	.	.	.	.	.	.	.	4	5	.	5	0.1	.	.	.	.	.	.	.	.	1	1	L	89	0	5		.	.
52	.	.	.	.	.	.	.	.	.	.	.	4	11	.	16	0.5	.	.	.	.	.	.	.	.	1	1	M	89	2	14		.	.

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                    S                                        C  C   L S      S L       P  M   M     C          M M A
                    P     U     U      F    F           O  U   R M      P P W  S V L  A   P    C R   P        O O M
        C           E     N     N      L    L     L     L  L   G L      O O I  C E A  L R O    Y U U O C U    D D A
        U  N        C     I     I   R  O    O     F     L  T   C C      A A L  I R N  V E A R P C N T E N    P U R
   I  S A  I        I     D     D   A  T    T     P     T  C  C H H  L  C C D  R B T  A L C U E I K A R K    O M A
O  D  I D  V        M     A     A   S  N    V     I     Y  O  A E E  U  E E L  P E A  C B E B R F 2 M E 2 C P B N
B  N  T R  E        E     D     D   G  U    O     C     P  N  R N N  M  A A E  U N G  E U A U A E 2 O U 6 R P E T
S  O  E A  L        N     1     2   O  M    L     K     E  T  D O O  P  E E G  S A O  A N E S C R 4 G S 4 D Y L H

53 3507 TIW AKE 003 16917 N7882 E5430   4691 6.3 1.2 101 311 1 . 35 12  50 1 15 . 2 .  7 . . . 2 . 1 . . . 2 . . .
54 3549 TIW AKE 003 16928 N7882 E5430 1 4678 6.3 1.9 101 311 1 2 60  7  40 .  8 0 8 0  3 . . . 4 . . . . 2 2 . . .
55 3624 TIW AKE 003 16896 N7882 E5432   4492 6.3 1.7 101 604 1 2 27  2 325 . 56 . 3 .  5 1 . . 2 . . . 1 1 2 . . .
56 3636 TIW AKE 002 14948 N7884 E4534   4341 5.0 0.7 101 604 1 .  3  0  19 2  5 . . .  1 . . . . . . . . . 2 . . .
57 3603 TIW AKE 002 15840 N7884 E5426   4385 5.0 0.6 101 604 1 2  6  1  27 .  6 . . .  2 1 . . . . . . . . 2 . . .
58 3604 TIW AKE 003 15853 N7884 E5426   4417 5.7 0.9 101 604 1 . 40 15  43 .  9 . . .  1 . . . 1 0 0 1 0 . 2 . . .
59 3625 TIW AKE 002 15942 N7884 E5428   4482 6.3 1.0 101     . 1 . 19  5  30 1  5 . 1 .  5 . . . 2 . . . 1 2 2 . . .
60 3635 TIW AKE 002 16871 N7884 E5430   4501 5.7 0.7 101 604 1 1 13  2  22 .  . . 1 .  2 . . . 1 . . . . . 2 . . .
61 3550 TIW AKE 003 16905 N7884 E5432   4484 5.7 2.2 101 604 1 3  .  5  50 . 18 . . .  5 . . . 3 . . . . . 2 . . .
62 3483 TIW AKE 002 15886 N7886 E5426   4529 5.7 0.6 101 390 1 . 11  1  14 .  . . . .  2 . . . 2 . . . . . 2 . . .
63 3484 TIW AKE 003 15896 N7886 E5426   4522 5.7 1.1 101 390 1 . 12  4  35 1 13 . 1 .  2 1 . . 3 . . . 4 . 2 . . .
64 3827 TIW AKE 4   15911 N7886 E5426   4419 0.6 1.3 101     . 1 3 80 16  81 1 24 . 1 . 11 1 . . 2 . . . . 2 2 . . .
65 3605 TIW AKE 004 15994 N7886 E5428   4456 6.3 0.6 101 390 1 1 18  6  46 . 12 . . .  3 2 . . 1 . . . . . 2 . . .
66 3637 TIW AKE 004 18239 N7886 E5434   4597 6.3 2.9 101     . 1 8 80 16 143 3 37 . 3 .  9 6 2 1 9 . . . 5 9 2 . . .

      C L         C   N S     C D     O L   P T    U        T    L    T S                P
      O A         A  S I I Z Z A O  P   E S   O R    N        W    L C W  R O  B    L S     E
   U U M U B K U J U R U O C S E E C P M  O O U N O U U R U I C C I   W  W G    A U I L I R F O    R M  U D
   N N P N I A N U N Y N L O Y A A O S L C L X N O L N N T N T A A D T O  O B S  M Y R E T T A X    G L P N U
   K K O K A I K N K O K A T R K E B I E R Y A K T A K K U K H C R S U O  O R T D A D A A R T U S Y L L H K N
O  2 2 S 2 T N 2 C 2 P 2 N I I E M C C G D G L 2 H N 2 2 L 2 O T D E B D  D N A U D U K V A Y N I E U U A 2 C
B  7 4 I 6 A Y 6 U 4 H 6 A A N R B U U U N O I O E A 7 3 A O R U N E E C  W C L N N N O E C P A Z A M M S 7 L
S  0 2 T 5 E A 1 S 8 L 6 C N C N R P M M O N S 2 R C 1 5 C 1 D S O D R T  T H K G G G A S H E L E R P P E 9 E

53 . . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 17 . 30 0.3 1 . . . . . . . . 1 1 S 89 1 11   . .
54 . . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 22 . 32 0.6 . . 1 . . . . . . 1 1 M 89 0  7   . .
55 3 0 0 1 . . . . . . . . . . . 1 . . . 3 . . . . . . . . . . . . . 4 65 . 25 0.2 . . 1 . . . . . . 1 1 M 89 3 -1   . .
56 1 . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4  2 .  4 0.1 . . . . . . . . . 1 1 M 89 0  0   . .
57 1 . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4  6 .  4 0.1 . . . . . . . . . 1 . M 89 0  1   . .
58 1 . . 2 . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 22 .  8 0.1 1 . . . . . . . . 1 1 S 89 1 14   . .
59 . . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4  9 . 10 0.2 . . . . . . . . . 1 1 M 89 0  5   . .
60 1 . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 11 . 10 0.1 . . . . . . . . . 1 . M 89 0  2   . .
61 . . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 15 . 28 0.4 . . . . . . . . . 1 1 M 89 2  3   . .
62 . . . 1 . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4  5 .  2 0.1 . . . . . . . . . 1 1 M 89 1  0   . .
63 1 . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 15 .  2 0.1 . . . . . . . . . 1 1 M 89 0  4   . .
64 2 . . . . . . . . . . . . 1 . . . . . 3 . . . . 1 . . . . . . . . 4 25 . 11 0.1 . . . . . . . . . 1 1 M 89 0 16   . .
65 . . . . . . . . . . . . . . . . . . . 3 . . . . . . . . . . . . . 4 25 .  6 0.1 . . . . . . . . . 1 1 M 89 0  6   . .
66 2 1 . 6 . . . . . . . . . . . 2 . . . 3 . . . . 1 . . . . . . . . 4 60 . 45 0.4 0 0 1 . . . . . . 1 1 M 89 0 16   . .
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     CARY, N.C. 27512-8000

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INES PRINTED @ $0.75 PER 1000 LINES.............. NA*
ARDS PUNCHED @ $8.00 PER 1000 CARDS.............. NA*
OTAL COST ....................................... $2.59
 THESE RESOURCES ARE CHARGED, BUT THE VALUES ARE NOT
```

1990
AK-E
Data Set

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPY	MODUMBEL	AMARANTH
3828	TIW	AKE	002	28738	N7833	E5424		5560	6.4	0.83	101	311	1	2	37	34	33	1	28	.	1	.	10	.	.	1	2	.	.	.	.	.	2	.	.	.
3809	TIW	AKE	003	27592	N7835	E5432		5536	7.2	0.14	101	221	1	1	27	2	10	.	1	.	.	.	1	1	.	.	1	.	.	.	.	.	2	.	.	.
3815	TIW	AKE	004	27485	N7837	E5427		5558	6.4	0.35	101	221	1	17	152	11	50	1	19	.	1	.	5	1	.	.	8	.	.	.	.	.	2	.	.	.
3829	TIW	AKE	002	27467	N7837	E5428		5492	8.0	0.10	101	50	1	.	17	1	12	.	1	.	.	.	2	1	.	.	.	.	.	.	.	.	2	.	.	.
3830	TIW	AKE	003	27355	N7841	E5428		5462	8.0	0.12	101	311	1	.	20	1	12	.	3	.	.	.	3	.	.	.	1	.	.	.	.	.	2	.	.	.
3831	TIW	AKE	004	27421	N7841	E5428		5460	8.0	0.59	101	311	1	9	40	41	32	.	10	.	.	.	6	.	.	.	3	.	.	.	.	1	2	.	.	.
3832	TIW	AKE	003	27378	N7843	E5426		5461	8.0	0.04	101	602	1	.	2	4	3	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.
3833	TIW	AKE	007	27413	N7845	E5426		5465	7.2	1.78	101	311	1	7	77	37	45	6	100	.	1	.	10	.	2	1	4	.	.	.	.	.	2	.	.	.
3781	TIW	AKE	003	23474	N7845	E5430		5193	7.2	0.51	101	210	1	.	13	0	7	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.
3810	TIW	AKE	004	23571	N7845	E5430		5243	8.0	0.79	101	.	1	8	63	0	8	.	4	.	.	.	3	.	.	.	.	.	.	.	.	.	2	.	.	.
3782	TIW	AKE	005	23593	N7845	E5430		5625	8.0	0.22	101	.	1	3	40	3	12	.	11	.	.	.	3	.	.	.	1	.	.	.	.	.	2	.	.	.
3811	TIW	AKE	006	23595	N7845	E5430		5246	7.2	0.41	101	626	1	.	35	5	12	1	9	.	.	.	2	.	.	.	.	.	.	.	.	.	2	.	.	.
3834	TIW	AKE	004	23464	N7849	E5426		5204	5.6	1.32	101	313	1	2	56	0	35	.	30	.	.	.	3	.	.	.	1	.	.	.	.	.	2	.	.	.
3812	TIW	AKE		23459	N7849	E5426	2	5191	2.1	0.27	101	.	1	.	45	0	10	.	10	.	.	.	5	.	.	.	.	.	.	.	.	.	2	.	.	.
3835	TIW	AKE	009	24919	N7853	E5424		5399	8.0	3.12	101	412	1	13	160	96	130	12	78	.	5	.	38	18	.	1	14	.	.	.	2	.	2	48	.	3
3836	TIW	AKE	010	24939	N7853	E5424		5395	7.2	4.60	101	412	1	12	350	180	155	13	98	.	2	.	120	10	1	3	49	.	.	.	7	.	2	.	.	3
3837	TIW	AKE	006	24821	N7853	E5426		5458	7.2	7.60	101	626	1	35	1140	213	700	.	654	.	.	.	100	20	4	.	76	.	.	.	4	.	2	.	.	.
3783	TIW	AKE	009	27300	N7853	E5426		5428	4.8	0.08	101	.	1	2	7	0	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	42	.	.
3813	TIW	AKE	007	24884	N7855	E5424		5393	8.0	1.38	101	.	1	9	148	31	60	6	52	.	.	.	20	7	.	.	3	.	.	.	.	.	2	.	.	.

UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGONS	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO
1	1	.	2	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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.	1	.	1	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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11	.	.	35	.	.	.	.	.	.	.	.	.	.	1	.	6	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
25	14	.	24	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	1	.	.	.	.	.	.	4
40	4	.	11	.	.	.	.	.	.	.	24	.	.	.	4	24	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4

UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
50	.	54	0.52	1	.	3	.	.	.	.	.	5	1	M	90	3	31		.	.
1	.	3	0.02	.	.	.	.	.	.	1	.	5	.	S	90	1	1		.	.
38	.	9	0.15	.	.	.	.	.	.	.	.	5	1	S	90	1	10		.	.
4	.	6	0.05	.	.	.	.	.	.	.	.	5	1	L	90	0	1		.	.
15	.	8	0.09	.	.	.	.	.	.	.	.	5	.	M	90	1	0		.	.
50	.	19	0.41	4	.	.	.	.	.	.	.	5	1	M	90	0	41		.	.
2	.	.	.	.	.	.	.	.	.	.	.	5	.	S	90	0	4		.	.
43	1	125	1.37	37	.	12	.	.	.	.	.	5	1	M	90	9	28		.	.
2	.	19	0.48	.	.	.	.	.	.	.	.	5	.	S	90	0	0		.	.
12	.	28	0.66	2	.	.	.	.	.	.	.	5	1	M	90	0	0		.	.
.	.	17	0.21	.	.	.	.	.	.	.	.	5	.	S	90	0	3		.	.
6	.	20	0.26	2	.	.	.	.	.	.	.	5	1	S	90	2	3		.	.
40	.	89	1.19	4	.	.	.	.	.	.	.	5	.	M	90	0	0		.	.
5	.	26	0.27	2	.	5	.	.	.	.	.	5	1	S	90	0	0		.	.
190	.	159	2.01	47	.	188	.	.	.	.	.	5	1	L	90	6	90		.	.
201	65	202	2.11	30	.	352	.	.	.	.	.	5	1	L	90	5	175		.	.
393	.	134	1.80	56	.	1554	1	.	.	.	.	5	1	L	90	19	194		.	.
.	.	.	.	1	.	.	.	.	.	.	.	5	.	S	90	0	0		.	.
65	.	77	1.01	16	.	12	.	.	.	.	.	5	1	M	90	5	26		.	.

IDNO	SITE	CUADRA	NIVEL	SPECIMEN	UNIDAD1	UNIDAD2	RASGO	FLOTNUM	FLOTVOL	LFPICK	COLLTYPE	CULTCONT	CARD	LRGCHENO	SMLCHENO	LUMP
3838	TIW	AKE	008	24896	N7855	E5425		5398	5.6	3.65	101	610	1	9	500	355
3839	TIW	AKE	007	27224	N7855	E5426		5450	7.2	7.88	101	.	1	41	940	331
3840	TIW	AKE	010	27248	N7855	E5426		5427	6.4	0.44	101	.	1	3	81	5
3784	TIW	AKE	009	24601	N7855	E5432		5242	8.0	0.03	101	343	1	.	7	0
3842	TIW	AKE		24958	N7857	E5424	2	5396	6.4	2.18	101	415	1	19	350	3
3841	TIW	AKE	008	27261	N7857	E5426		5432	8.0	1.59	101	.	1	32	200	14
3843	TIW	AKE	009	27279	N7857	E5426		5434	7.2	0.74	101	.	1	29	300	22
3844	TIW	AKE	003	27581	N7886	E8416		5509	8.0	0.64	101	232	1	4	94	36
3814	TIW	AKE	002	27550	N7888	E5416		5535	8.0	0.54	101	202	1	1	38	71
3845	TIW	AKE	003	28720	N7888	E5416		5559	7.2	0.93	101	202	1	1	42	82

IDNO	SPOACEAE	LPOACEAE	WILDLEG	SCIRPUS	VERBENA	PLANTAGO	MALVACEA	RELBUN	MPOACEAE	RUBUS	CYPERAC	CRUCIFER	UNK224	POTAMOG	CEREUS	UNK264	CRD	MODPOPPY	MODUMBEL	AMARANTH
3838	196	23	136	.	10	.	83	108	.	.	62	.	.	.	8	.	2	.	.	30
3839	600	33	437	.	12	.	229	52	.	4	92	.	.	.	.	.	2	.	.	120
3840	17	.	19	.	.	.	6	.	.	.	2	.	.	.	.	.	2	.	.	.
3784	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	2	.	.	.
3842	12	.	175	.	1	.	18	57	3	.	6	.	.	.	.	.	2	.	.	.
3841	57	2	300	.	.	.	66	4	.	.	6	.	.	.	.	.	2	.	.	.
3843	110	5	125	.	.	.	17	3	.	.	6	.	1	.	.	.	2	48	.	.
3844	57	.	58	.	1	.	7	3	1	1	13	.	.	.	1	.	2	.	.	.
3814	25	.	35	.	2	.	11	1	.	.	.	2	.	.	1	.	2	.	.	.
3845	32	2	28	.	2	.	8	.	.	.	1	.	.	.	.	.	2	.	.	.

UNK270	UNK242	COMPOSIT	UNK265	LABIATAE	KAINYA	UNK261	JUNCUS	UNK248	CARYOPHL	UNK266	SOLANAC	NICOTIAN	SISYRINC	ZEAKERN	ZEAEMBR	COBCUP	CAPSICUM	DOMLEGUM	CRDNO	POLYGON	OXALIS	UNK202	OENOTHER	LSOLANAC	UNK271	UNK235	PORTULAC	UNK201	TRITHORD	CACTUS	CARDNO
14	6	.	22	.	1	.	.	.	.	.	.	.	.	3	.	7	4	.	3	.	.	.	.	.	.	.	.	.	.	.	4
.	20	.	37	4	.	.	.	.	.	.	.	.	.	4	3	2	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
1	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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13	.	.	8	.	.	.	.	.	.	.	.	.	.	1	.	2	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2	.	.	3	.	.	2	.	.	.	.	.	.	.	.	4
3	.	.	1	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	1	.	.	.	.	.	.	.	.	.	4
1	.	.	5	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	3	.	.	.	.	.	.	.	.	.	.	.	4
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UNIDSEED	TUBER	WOODCT	WOODWT	TWGBRNCH	STALK	DUNG	LLAMADNG	CUYDUNG	WIRAKOA	LEAVES	TRITRACH	SORTTYPE	FAUNAL	BOXSIZE	YEAR	LRGLUMP	SMLLUMP	PHASE	UNK279	PEDUNCLE
257	3	61	0.86	34	.	917	.	.	.	.	.	5	1	L	90	25	330		.	.
360	5	230	3.16	22	.	3240	.	.	.	.	.	5	1	L	90	21	310		1	.
26	.	24	0.29	6	.	36	.	.	.	.	.	5	1	M	90	1	4		.	.
5	.	2	0.01	.	.	.	.	.	.	.	.	5	.	S	90	0	0		.	.
55	.	75	0.68	21	.	168	.	.	.	.	.	5	.	M	90	2	1		.	.
130	1	92	0.51	59	.	54	.	.	.	.	.	5	.	M	90	7	7		.	.
110	1	17	0.19	21	.	16	.	.	.	.	.	5	1	M	90	2	20		.	.
77	.	52	0.36	8	.	35	.	.	.	.	.	5	1	L	90	1	35		.	.
90	.	32	0.25	1	.	12	.	.	.	.	.	5	.	M	90	1	70		.	.
57	.	52	0.62	2	.	28	.	.	.	.	.	5	1	M	90	2	80		.	.

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